

PLANTS COLLECTED IN ECUADOR DURING 1923 BY A. S. HITCHCOCK.

Guayaquil June 18, 1923

✓19914 *Panicum*

Tidal marsh along Rio Guayos, water front of city. Stems
creeping at base; has much the aspect of next.

✓19915 *Eriochloa*

same locality

✓19916 *Panicum*

same locality

✓19917 *Chloris*

June 19

low moist ground

✓19918 Low moist ground near river. Gregarious, 4-6 ft. tall,
erect or decumbent at base; fls. pink.

19919 Low ground. Weed in pasture, 2 ft. tall, much branched;
fls. pink.

✓19920 Same loc. 2 ft. tall.

✓19921 " " 4-6 ft, wand-like branches; fls. yellow.

✓19922 " " 3 ft. tall; fls. yellow-orange.

✓19923 " " 3-6 ft; fls. white.

✓19924 " " 1-2 ft.; fls. lilac; annual.

✓19925 " " 2-4 ft. fls. white; rootstocks produced.

21827 = *Gynandropsis*

21827 = *Gynandropsis* (L.) Steyermark

Specimen number

19926 Swampy soil near river. Gregarious, with bulbs and rhizomes; 2-3 ft. tall; fls. white.

✓19927 On rocky cliff. Shrubby, 6-10 ft.; fls. white.

19928 " " " Large shrub; fls. yellow; leaves simple or with 1 or 2 leaflets at base.

✓19929 Rocky hillside. Shrub 8-12 ft.; fls. pale yellow, viscid.

✓19930 Same. Stout vine climbing over bushes, masses of bright pink fls.

✓19931 Same. 3 ft. tall.

✓19932 Same. 4-6 ft.; fls. white.

✓19933 Same. Climbing vine, 20-30 ft. fls. white.

✓19934 Open ground. Seed, 3 ft., fls. white.

✓19935. Same. Seed, 3-4 ft. fls. orange-yellow.

✓19936. Climbing on shrubs, fls. purple-blue.

✓19937. Climbing on shrubs; fls. (bracts etc.) white.

✓19938. Rocky hillside. Tree 20-30 ft.; fls. lemon-yellow.

Hills across Rio Guayas, west of Guayaquil June 20

✓19939 Open cut-over ground. Annual, pods like crucifer.

✓19940 Hillside among shrubs. Straggling half-shrub, 6 ft.

✓19941 Shrubby hillside. Shrub 5 ft. fls. white.

✓19942 Cut-over ground. 3 ft., sticky.

✓19943 Cut-over ground. *Bouteloua*. Annual decumbent spreading.

19944 Same Vine on shrubs, small blue fls.

✓19945 " " fls. yellow.

19946 " 5-pointed capsule.

✓19947 " *Panicum*

✓19948 " *Paspalum* straggling, much branched, roughened.

19949 " Perennial bunches

✓19950 " vine; fls. pale yellow, falling quickly; fruit orange.

✓19951 " 2 ft. fls. orange and red.

✓19952 Shrubby hillside. 8-12 ft. tall; fls. pale yellow, fading to pink.

19953 Same *Pennisetum* large bunches, up to 8 ft. tall; straggling-creeping at base, shrub with *Cephalanthus*-like fruit; 6-10 ft. prickly.

✓19954 " *Paspalum* 2-4 ft. straggling, much branched.

✓19955 Cut-over land. *Paspalum* straggling half-shrub; fls. pinkish.

✓19956 " " "

✓19957 " " " Vine, fls. yellow.

✓19958 " " " " scarlet.

✓19959 " " " " null purple or white.

✓19960 " " " shrubby 6-8 ft; fls. yellow.

✓19961 " " " 4 ft.

✓19962 Among shrubs *Olyra*

✓19963 Among shrubs *Lesiacis* long simple branches, 8-10 ft.

✓19964 Cut-over land fls. liliac.

✓19965 Low ground near water. Tree 30 ft.; fls. white.

✓19966 " " " " Shrub, straggling, 10 ft.

✓19967 " " " " Scrambling shrub, several feet; fls. white.

✓19968 " " " " Annual; fls. liliac-blue.

✓19969 Among shrubs *Penicum* much branched, straggling, 5-6 ft.

✓19970 " " " Straggling herb, 6-10 ft.

✓19971 " " " " several ft.; fls. white.

✓19972 " " " Vine, fls. white.

19973 " " " Fungus, on *Convolvulus*.

✓19974 River bank Weed, fls. white, fruit black.

✓19975 Along road " "

✓19976 Open ground 2 ft. much branched.

✓19977 " " along road. *Sporobolus* "

✓19978 Bank of river

✓19979 " " " Vine, fls. blue.

Province Guayas. Oil camp at Bolén, port at end of launch journey, between Guayaquil and Salinas. June 21

✓19980 Low ground, very wet in wet season.

✓19981 " " Tree, 20 ft.

✓19982 " " Herb

✓19983	Low ground, very wet in wet season					
19984	"	"	"	"	"	" (Discarded)
✓19985	"	"	"	"	"	" 4-6 ft., fls yellow.
✓19986	"	"	"	"	"	" Tree, 20 ft. fls. white.
19987	"	"	"	"	"	" (Discarded)
✓19988	"	"	"	"	"	" Half shrub, 3 ft., fls.
19989	"	"	"	"	"	" orange. Tree 10-15 ft.
19990✓	"	"	"	"	"	" Chloris common
19991✓	"	"	"	"	"	" Tree, 10-15 ft; fls. green.
19992✓	"	"	"	"	"	
19993	"	"	"	"	"	
19994						(Discarded)
19995✓	"	"	"	"	"	" Clambering vine, fls. green.
✓19996	Tidal flat					
97✓	"	"				Shrub up to 6 ft. fls. pink-purple.
98✓	"	"				
99✓	"	"				
20000✓	"	"	Sperobolus			
01✓	"	"				
02✓	"	"				
✓03	"	"				
✓04	"	"				Tree, 16 ft. fls. scarlet.
✓05	"	"				fls. blue

Province Guayas, Oil Camp between Guayaquil and Salinas;
collections made along grade of new Ry, Los Quemados. June 22

20006✓	Rolling scrub-land	Dactyloctenium	
20007✓	"	"	Vine, fls. yellow.
8✓	"	"	" " orange red.
9✓	"	"	Fls. purple, viscid.
10✓	"	"	cluster of bristly fruits.
11✓	"	"	Vine; fls. yellow; fruit globose, 6 in diam. looks like water-melon.
20012✓	"	"	Vine, fls. yellow; fruit tuberulate.
13✓	"	"	Tree, 30 ft, fls. white.
14✓	"	"	" 15 ft. fls. white
15✓	"	"	Eragrostis
16✓	"	"	Shrub 4 ft. fls. white & yellow.
✓17	"	"	Vine; fls. greenish white and lilac.
✓18	"	"	Tree 10 ft. fls. white.
✓19	"	"	Halfshrub, 6 ft. fls. lilac.
✓20	"	"	Shrubby, 5 ft. fls rose.
✓21	"	"	Vine, fls. lilac-pink, fruit large
✓22	"	"	3 ft.

✓20023	Rolling scrub land	Shrub, 5 ft. fls. yellow.
24✓	"	" " " 6 ft. fls. yellow.
25✓	"	" " " Vine fls. blue.
26✓	"	" " " white.
27✓	"	" " " rose-purple.
28✓	"	" " "
29✓	"	" " " 6-8 ft. fls. yellow.
30✓	"	" " " vine, fls. dark purple-magenta
31✓	"	" " " rose.
32✓	" Ab	" " " Anthephora
33✓	"	" " " "
34	"	" " " Rust on 20035
35✓	"	" " " Vine
36	"	" " " Rust on 20037
37✓	"	" " " Vine
38✓	"	" " " Vine
39✓	"	" " "
40✓	"	" " " fls. rose and white.
41✓	" land	Shrub, 8 ft. fls. rose.
42✓	"	" 19950
43✓	"	" fls. yellow.
44	"	" aspect of 20043, but fls. white.

20045✓	Rolling land	Vine, fls. yellow.
46✓	" "	
47✓	" "	Shrub, 4 ft. fls. pink.
48✓	" "	6 ft.
49✓	Swamp	
50✓	"	Oryza
51✓	"	
52✓	Rolling scrub-land	
53✓	" " "	Straggling shrub or half shrub, very fragile; fls. yellow.
54✓	" " "	vine, fruit only.
55✓	" " "	fls. scarlet.
56		Chloris
✓57		Lasiscis
		Always find this a single long culm, 4-8 ft., sparingly branched toward summit; panicle narrow.
✓58	" " "	Scrub, 6 ft., fls. red & orange.
✓59	" " "	Tree, 30 ft. fls. white.
✓60	" " "	Herb, 3-6 ft.; fruit
61	" " "	Gall or fungus on tree with yellow flowers 19928

20062 ✓	Rolling scrub-land	Tree, 10 ft. fls. white.
63 ✓	" " "	fls. pale blue.
64	" " "	Chloris
65 ✓	" " "	Syntherisma
66 ✓	" " "	
67 ✓	" " "	fls. white.
68 ✓	" " "	vine.

Province Guayas, Oil camp between Guayaquil and Salines; in vicinity of Road Camp, 15 km. S.E. of main camp. June 23.

20069 ✓ Open dry woods. Vine on tall tree (cut tree down), fls. yellow with yellow-green eye.

✓70 " " " Tall tree, cut tree down, but flowers broken in falling, bright yellow (slightly orange); no leaves on tree.

✓71 Border of swamp Cyperus

✓72 " " " Vine, fls. yellow.

✓73 " " " fls. yellowish white.

✓74 In water o swamp Hymenachne form large area in swamp.

✓75 ✓ Border of swamp Cuscute on 20079

✓76 On water of swamp Lemna

✓77 In " " " and in mud along edge. Fls. yellow.

✓78 Shade of woods near swamp

79 ✓ " " " border of swamp

✓80 " " " " " " " Oplismenus

20081 Border of swamp. Large shrub or small tree, 10-15 ft. fls. white.

82 ✓ " " " Herb

83 ✓ " " " *Echinochloa*

84 ✓ Swamp; in water and in mud along edge. *Sagittaria*, up to 8 ft; blades up to 18 in.; fls. white; ~~fruit~~ from 20987 (19987 discarded).

85 ✓ Low woods Small tree, 15 ft. fls. yellow.

86 ✓ Near swamp on shrub

87 ✓ Mud, edge of marsh *Eleocharis*

✓ 88 Border of marsh (19984 discarded)

✓ 89 Water of marsh 6-8 ft., fls. purple.

✓ 90 " " "

91 Shallow water of marsh

✓ 92 Sandy bank *Eragrostis*

✓ 93 Border of marsh shrub 4-8 ft. fls. white

✓ 94 " " " Climbing on shrubs; fls. white

✓ 95 water of marsh Pulls up easily; blades floating; fls. all closed (3 p.m.) Above surface, but afterwards retreat below surface.

20096✓ Swimming just beneath surface of water of swamp.

97 Floating on water of marsh.

98✓ Marsh (a mixture of 20096 and 20076?)

99✓ Floating on water of marsh, in flower; spathes greenish-white.

20100 Woods Large tree up to 50 ft; fls. orange-red.

101✓ " Vine climbing on shrubs; fls. red & orange red.

102✓ " fls. greenish white with bluish tinge.

103✓ " Single stem, 4 ft. branched at summit, with cluster of leaves and bright rose inflorescence (branches and flowers).

104 " Shrub.

105 " Vine, woody.

106✓ Sandy bank of stream. Spreading-decumbent

107 " " " " Leptochloa

108 " " " "

109✓ Woods Vine, herbaceous, fls. brown.

110 " fungus on 20110.

111✓ " shrub 6-10 ft. fls. white.

112 " fungus on mallow.

113✓ " 3-4 ft. fls. red.

114✓ " Shrub 4-6 ft. fls. rose.

115✓ Swamp Stems very spongy, floating on surface of water; fls. yellow.

Province Guayas, Oil camp between Guayaquil & Salinas; railway grade to west. June 21.

20116 ✓ woods

117 ✓ " fls. rose-scarlet.

118 ✓ " Herb 6 ft.

119 ✓ " straggling herb, fls. yellow, fruit globose, 1 cm. diam. scarlet.

120 ✓ " Half-shrub, 5 ft. fls. pale blue.

121 " Woody vine, fls. white.

22 ✓ " herbaceous vine.

23 ✓ " " " 3-celled capsule in involucre.

24 ✓ Straggling out of a pile of railway ties.

Guayaquil, road west across Rio Guayas. June 26.

20125 Lasiacis pubescent and glabrous sheaths on same plant.

✓ 126 Among brush along river, straggling herb, 6-8 ft.

✓ 127 shrub, 6-10 ft. fls. white.

✓ 128 small tree, 20 ft. fruit globose to ovoid, like a young osage orange.

129 Lasiacis

130 (Discarded)

✓ 131 6 ft; fls. pale yellow with small purple eye.

20132 Paspalum young plant showing annual root.

✓133 Lasiacis spikelets small otherwise looks like sorghoidea.

✓134 Paspalum 19955

135 fungus on Lasiacis ruscifolia.

136 Lasiacis more or less pubescent.

✓137 shrub 10 ft.

✓138 near river Tree 25 feet.

✓139 Shrub or half shrub 6 ft. fls. white.

✓140 woody vine.

✓141 calyx and pedicels dark purple, corolla white.

✓142 half shrub, 6-8 ft, fls. white.

✓143 Tree 30 ft.

✓144 small tree, 20 ft.

✓145 vine

✓146 woody or half woody vine.

147 along river, shade of small trees Oplismenus

✓148 Wooly vine; fls. white tinged with orange.

✓149 Vine, fls. crimson.

✓20150

✓151 fls. yellow.
✓152 vine, fls. rose-lilac.
✓153 5 ft., fls. yellow.
154 small tree, 20 ft.
✓155 vine
✓156 fls. white
157 Straight small trunk, 4 ft,
no leaves, cluster of
flowers at top; inflores-
cence red.
158 Lasiacis
✓159 Tall herb, up to 15 ft.

Province Guayas, Milagro June 30

20160 Open ground along railway

161 " " " " Paspalum common in lawns and
grounds.
✓162 " " " "
163 " " " " Leptochloa
✓164 " " " " prostrate, rooting.
✓165 " " " "
✓166 " " " " Fls. yellow.
✓167 " " " "
✓168 " " " " Eragrostis

✓ 20169 Open ground along railway

✓ 170	"	"	"	"	fls. white.
171	"	"	"	"	Eleusine
✓ 172	"	"	"	"	Leptochloa
✓ 173	"	"	"	"	
174	Lawn about house				Axonopus
175	Garden in shade				Oplismenus
176	"	"	"		Eragrostis
✓ 177	Weed in garden				Pas. alum
178	"	"	"		Chloris
✓ 179	"	"	"		Eragrostis
✓ 180	"	"	"		Aspalum

Province Jueyss, near Milagro, along Ry. west of Ingenio Valdez, mostly weeds.

✓ 20181		Half shrub 3 ft. fls. orange-yellow.
✓ 182		" shrub, 4-6 ft. fls. lilac; fruit globose, fleshy, lilac purple.
✓ 183		" shrub; 6-10 ft; fls. greenish white.
184		Vine herbaceous; fls. white.

20185 Moist place. 5-8 ft, fls. pale yellow with orange-red apex, and orange red leaf below; leaves at regular intervals along stem.

✓ 20186 Shrub, 6 ft.

✓ 187 3-4 ft.; corolla red, crown orange.

✓ 188 *Cenchrus*

✓ 189 Erect half shrub; fls. lilac.

✓ 190 more or less woody, fls. greenish white.

✓ 191 2-4 ft.; fls. white.

✓ 192 shrub; fls. white, in clusters in axils.

✓ 193 *Panicum* common in cut over soil.

194 *Coix*

✓ 195 herb

✓ 196 Vine, fls. yellow.

✓ 197 herb, 5-8 ft, fls. lilac.

198 fls. pink-purple.

✓ 199 *Panicum*

✓ 200 8 ft. fls. white.

✓ 201 Simple stems, equally leafy; fls. yellow, dark green at apex.

✓ 202 Dry pond *Paspalum*

✓2033 Vine, herbaceous
✓ 204
✓ 205 Shrub, very prickly, 5 ft;
fls. rose,
✓ 206 half shrub, 2-5 ft, fls.
pink.
✓207 herbaceous vine, fls. lilac
& purple.
✓208 viscid. fls. purple.
✓209 Vine
✓210 2-3ft. fls. pink.
✓211 woody at base; leaves fleshy.
✓212
✓213 *Panicum*
214 "
215 "
✓216 straggling, 6 ft. fls. white.
✓217 3-6 ft. fls. green.
✓218 2 ft. fls. yellow.
219 Tree 30 ft, planted along
fence; fls. pink-tinged.
✓220 8 ft. fls. yellow.
✓221 Fls. smaller than in 20220
✓222 herbaceous vine, fls. white.
✓223 6 ft.
✓224 Shady place *Ichnanthus*

✓ 20225 herbaceous vine, fls. purple-blue
226 Blades palmate; fls. green, short
pediceled; fruit 1 in., ovoid,
smooth.

Scrubby woods, native vegetation; low flat land, very wet in wet season, now completely dry except for a few ponds (all except as otherwise noted)

July 1, 1923

✓ 2027 8-12 ft. fls. white.

✓ 228 shrub 10-12 ft. fls. white.

✓ 229 Tree 15-20 ft. fls. in axillary clusters white.

✓ 230 Herb, long straggling branches, fls. lilac.

✓ 231 8-12 ft. fls. lilac.

232 4 ft., felty and prickly; fruit globose, felty-hirsute, 2 cm. diam.; fls. white.

✓ 233 *Axonopus* long runners floor of scrubby forest.

✓ 234 Small tree or tall shrub, 10-20 ft., fls. green-yellowish green.

✓ 20235 On dried mud, in wet seasons in pond. Water plant, fls. white.

✓ 236 *Lasiacis*, clambering in woods, same as Guayaquil, fr. small for sorghoidea.

✓ 237 *Oplismenus*

✓ 238 Tree 30-40 fr, fls. greenish.

✓ 239 shrub 6 ft. fls. small, yellowish green; blades lobed.

✓ 240 shrub 5-8 ft. fls. medium pale yellow; blades scarcely lobed.

✓ 241 Small tree, 10-15 ft., fls. white.

✓ 242 fls. white.

✓ 243 shrub 6-15 ft.

✓ 244 tree 25 ft. fls. greenish.

✓ 245 tree 25 ft. fls. white.

✓ 246 vine, 30 ft. fls. greenish.

✓ 247 herbaceous vine, fls. yellow.

✓ 248 Half shrub 8 ft. fls. orange-yellow viscid.

✓ 249 Fruit of a prickly Mimosa with rose fls., already collected.

✓ 20250 Half shrub, erect, 5-8 ft, fls. white.

✓ 251 Surface of water of pond.

✓ 252 Around pond, *Homalocenchrus*

✓ 253 moist place 3-6 ft., fls. clear pale yellow

✓ 254 " " *Pennisetum* Single spikes terminating culms on the few very long branches; culms decumbent-rooting at base.

255 " "

✓ 256 dried up pond *Paspalum*

✓ 257 " " *Panicum*

258 Vine, fls. yellowish green, pods long and slender.

✓ 259 Shrub, 6-10 ft. fls. white.

✓ 260 5-10 ft., bracts scarlet at margin & apex; lowest bract usually developed into a blade; blades sometimes bronze beneath

✓ 261 Shrub, 8 ft. fls. white.

262 dried up pond .

263 Herbaceous vine, fls. white.

✓ 264 Woody vine, inflorescence scarlet.

✓ 265 Tree 25 ft. fls. white.

	Same		July 2
20266	Rytillix		
✓267	Along fence	3 ft.	
✓268		6 ft. fls. pink, fading to bluish.	
✓269	In cut cornfield.	Vine, fls. yellow, considered a pest.	
✓270		Vine fls. white.	
○ 271	Along roadside	Syntherisma	
✓272	"	"	
✓273		On a tree.	
✓274	raspalum	Rough sheaths; common, clambering over bushes, fence posts and trees to as much as 15 ft., old racemes reflexed.	
✓275		Kerbaceous vine, fls. yellow.	
✓276	Dried up pond	Herb	
✓277	" " "	Fls. yellow, petals fugacious.	
✓278	" " "		
✓279	" " "	Manisuris	
✓280	" " "		
✓281	" " "	Annual, fls. yellow with purple eye.	
✓282	" " "	Herb.	

20283 Along stream *Panicum* Among *Gynerium sagittatum*; hairs on sheaths prickly, irritating

284 ✓ Tree 40 ft. fls. white.

285 ✓ Among shrubs and grasses *Leptochloa*

286 ✓ 4 ft.; fls. a beautiful blue-purple.

287 ✓ Woody vine, inflorescence red.

288 ✓ Tree, 25 ft. fls. yellowish green

289 ✓ Herbaceous vine, fls. white with purple spots in eye.

290 Edge of timber *Papaya*, wild similar to the cult. Dioecious. with sessile fls, 2 in. long: fruits numerous, shape of cult. but smaller, 4-6 in. Trees 1 to 15 ft. in panicles 1 ft. long; fls. smaller.

291 ✓ Shrub 6 ft. fls. yellow & red.

292 ✓ Herbaceous vine

293 ✓ Shrub 15 ft, with straggling or vine like branches; fls. white.

✓ 294 *Panicum* Straggling and branching at base.

✓ 295 *Lesiacis*

20296 Herbaceous vine, fls. blue.

297 Among bushes

✓298 Small tree, 15 ft. fls. yellow.

✓299 In timber *Lasiacis* Straggling and branched at base.

Province Chimborazo. Maigra. Along July 4
By 2 km. to east

20300 Organ cactus, up to 20 ft.

✓301 Herb. vine fls. purple.

✓302 Shrub 6 ft. fls. blue.

✓303 2-3 ft.; fls. white.

✓304 Halfshrub, 6-8 ft. fls. pale lilea

✓305 6 ft.

306 Shrub 3 ft. fls. blue.

✓307 " 10-20 ft. fls. white.

✓308 Flat mats in open ground

✓309 Weed along track.

✓310 Half shrub 8 ft. fls. white.

311

✓312 Straggling much branched.

313 *Chaetochloa*

✓314 " " " fls. crimson.

✓315 Thick stem, 1-2 in., 1 ft. tall,
infl. at summit, fls. white,
pink-tinged; no leaves present.

✓ 20316 6 ft fls. lilac
✓ 317 shrub, 8 ft. fls. orange.
✓ 318 ls. yellow.
✓ 319 shrub 10 ft. fls. white.
✓ 320 Growing on various shrubs and
herbs; fls. shining white.
✓ 321 3-5 ft. fls. yellow.
✓ 322 Along Ry cut Muhlenbergia
323 herb 3-5 ft. fls. scarlet.
✓ 324 3 ft. in fruit.
✓ 325 Vine, leaves all withered.
326 Along Ry cut Pectilema
327 " " "
✓ 328 Slope of hill Andropogon
✓ 329 Heteropogon annual, culms mostly single.
✓ 330 Flowers scarlet.
331 Vine fls. scarlet
332 ✓ woody vine in fruit.
✓ 333 Dry slopes Uniola bunches.
✓ 334 Herb 3-5 ft. fls. yellow.
✓ 335 6 ft fls. salmon pink.
✓ 336 Small tree or shrub 8-20 ft.

✓30337 Herb. branches slender, vinelike
fles. yellow.

✓338 Tree or shrub 6-20 ft.

339 Rocky out .

✓340 Open ground Leaves with dark spot.

✓341 *Paspalum*

✓342 Shrub 6-8 ft. fles. white.

✓343 " 10-15 ft. rays crimson.

✓344 Dry slope, among shrubs *Helics*

✓345 Vine, fles. white.

✓346 Shrub 10 ft. fles. white.

347 On trees, fles. lilac.

✓348 Half shrub fles. orange.

✓349 Dog *Polygonum* Perennial.

✓350 " *Agrostis*

✓351 " Perennial with rhizomes.

✓352 "

353 Rocky slope *Pennisetum*

354 Rocky cliff

✓355 Vine, all upper part herbaceous;
fles. white.

✓356 Creeping over rocks and along
ground.

✓357

20358 Common on the slopes; leaves 2-4 ft. even 8 ft. long, mostly 4-6 in. wide, infl. 10-15 ft.

✓359 Shrub 8-15 ft. blades white-to-mentose beneath, fls. yellow.

✓360 *Senchrus*

✓361 Slope *Chaetochloa* Base decumbent and tangled in shade of bushes.

362 *Lesiacis*

✓363 Shrub 10 ft. fls. lilac.

✓364

✓365 Half shrub, branches long & straggling, up to 10 ft. fls. bluish.

✓366 3-5 ft. fls. yellow.

✓367 Creeping vine; fls. salmon-orange.

✓368 Shrub 6 ft. fls. blue.

✓369 Herb. single stem up to 12 ft.

✓370 Rocky slope in moist place Vine 30 ft.

✓371 4 ft. fls. blue.

✓20372 6 ft. shrubby, fls. orange yellow.

373

✓374 Half shrub fls. white.

✓375 " " 6 ft. fls. white.

376 Lasiacis

✓377 Rocky, shrubby moist slope. Small tree or shrub up to 20 ft.; juice orange even in trunk.

378 " " " in shade.

✓379 Fleshy stem, 1 ft.; fls. orange-yellow tinged with brown.

✓380 Herb 3 ft. straggling branches.

✓381 4 ft.

✓382 Sporobelus

✓383 Shrub 8-15 ft. fls. lilac.

✓344 Bog

✓385 " 8-15 ft. fls. white.

✓386 Small tree or shrub 15 ft.

✓387 " " " " " "

✓388 " " 20 ft. mostly in fruit.
Common.

✓389 5 ft. fls. orange-yellow.

✓ 20390 Shrub, 16 ft. fls. lilac. (All
leaves with fungus)

✓ 391 Shrub, 6 ft.

✓ 392 " 8-15 ft.

✓ 393 Floating on water in bog

✓ 394 Bog Fls. white.

395 "

✓ 396 "

397 "

✓ 398 " Fls. pale yell w.

399 " Muhlenbergia

400 " 3 ft. fls. orange-yellow.

✓ 401 Floating in water of bog.

Province of Guayas. Teresita, (a banana plantation) July 5
3 km west of Bucay. Very rainy place, rains usually every day.

20402 On tree trunk .
✓403 " " "
✓404 Open ground
✓405 Small tree, 10 ft., fls. white,
pendulous.

20406✓ On tree; bracts scarlet, fls.
scarlet below, white at
apex.

407 On tree, fruiting raceme decurved

408✓ " " trunk.

409✓ " " "

410 " " "

411✓ " " "

412 Terrestrial, frond 4-5 ft.

413✓ Open ground Paspalum

414✓ Tree 15 ft. fls. white.

415 Common in woods Bamboo, spiny, as much as 6-7
in. diam., 60 ft. tall; feathery
looking in distance like
Phyllost. mitis. Young shoots
rather stout, rather blunt
pointed; sheaths strongly hirsute
with black hairs, the
young shoot appearing dark.

416✓ Scrub 3-8 ft; fls. greenish,
fruit globose, whitish-green,
5 mm. diam.

20417✓

Tree, 15 ft. few branches;
leaves clustered at end of
stem & branches; fls. scarlet,
very deciduous, on slender bran-
ches from trunk; fruit globose,
1-seeded. (20545)

418✓

Tree similar to 20417; single
leaves trunk, leaves clustered
at summit; fls. scarlet, very
deciduous on fls. slender
branches from lower part of
trunk; fruit 6 in. long.

✓419

4 ft. fls. yellow.

420

On tree trunk.

✓421

Stout erect stems 3-5 ft.; fls.
purplish.

✓422

On branch of tree.

423 On moist ground

424 Moist open ground *Panicum*

✓425

Ichnanthus tangled mass, edge of thicket;
sheaths hirsute.

426 Moist ground edge of thicket, fls. white.

✓20427 Moist ground herb 8 ft., single stem with short branches
fls. yellow.

✓428 " " " greenish.

✓429 " " *Oplismenus* Tangled 3-4 ft. long, fl.
branches erect.

✓430 Branched herb, 6-8 ft. fls. white.

✓431 3-4 ft. stinging nettle.

432 Clambering in thicket *Lesiacis*

✓433 Open moist ground *Panicum*

✓434 " " " *Paspalum* Weed in field

Teresite forest between house and station. Collections
in forest and along edge. July 6.

20435 Trunk 6 ft. up to inflorescence;
infl. creamy white, 4 ft. pen-
dulous; leaves about 15 ft.

✓436 On small tree 3 ft.

437 Forest *Lesiacis*

✓438 " " "

439 On tree

✓440 Terrestrial, mostly acaulescent,
petiole 2-3 ft. fls. white.

✓441 On tree branch.

✓442 High climbing herbaceous vine;
leaflets 3; disk yellow,
rays red.

20460 Shrub 4 ft. fl. white.

✓461 " 3-6 fr., fls. pale yellow,
bracts or calyx orange
red; tips of leaves red-
brown.

462 On tree

463 ✓ Shrub 4 ft. fls. reddish yellow

464 ✓ Open ground, clearing. Vine.

465 On tree branch.

✓ 466 Shrub, single stem; leaves spi-
ral; bracts red, fls. orange
red.

✓ 467 *Panicum*

✓ 468 Open ground edge of timber. *Ichnanthus* low growing
cf 20446

✓ 469 Weed along road. Flowers blue.

✓ 470 *Axonopus* "Camalote", good forage; 6 ft.
common, indigenous.

✓ 471 Open ground.

✓ 472 " " *Ch. etochloa*

✓ 473 " " Fls. yellow.

✓ 474 Moist open place.

20475 ✓

Tree 20 ft. fls. pink, rose
tinged.

✓476 Up to 12 ft.; inflorescence 4 ft. from ground; fls.
pale yellow.

477 Shrub 3 ft. fruit scarlet.

478 Shrub 8 ft.

479 On tree

✓480 Vine, fls. white.

✓481 Shrub 6-8 ft. fls. white.

✓482 Leafy stem 5 ft., calyx red, corolla white-cream.

✓483 Tree 20 ft. fruit orange to red.

484 Floor of forest erect.

485 On tree.

✓486 On floor of forest herb

487 Terrestrial, 3 ft.

✓488 Acaulescent.

489 Climbing.

✓490 Woody vine, fls. greenish white.

491 cf 20450

✓492 Shrub 6-10 ft. fls. purplish blue.

493 Woody vine, high climbing, fls. yellow with brown
streaks, calyx green; pedicels & base of calyx
purplish.

20494 ✓ Shrub, wide spreading; heads yellow.

495 ✓ Woody vine, high climbing; fls. racemose, corolla green outside, dark purplish blue inside.

✓496 Low moist place

✓ 497 Shrub, wide-spreading, 10 ft. fls. white.

✓498 High climbing woody vine; fls. orange, spotted with dark red or nearly all red.

✓499 Opening in forest Imperata

✓ 500 Shrub, wide-spreading, 6-10 ft. fls. yellow.

✓501 2-3 ft. fls. scarlet-rose.

✓502 Shrub 6-8 ft. fls. rather dark blue.

✓503 Moist open ground, Creeping and rooting in mats; fls. blue-lilac.

504 3 ft. fls. yellow (cf 20419)

✓505 High climbing, fls. white.

Trisetum, Road through forest and along Ry. west of station.

July 7

✓20506 Herbaceous vine, 3-4 ft.

✓507 Erect herb 3 ft. fls. yellow.

20508 herb. vine fls. scarlet.

✓509 " " " yellow.

510 Along Py. small tree, fls. white.

✓511 Shrub or nearly herbaceous, 8-15 ft. fls. white.

✓512 8 ft. leaves in spiral, single terminal cone.

✓513 Single stem 8 ft; leaves clustered at summit, fruit ovoid scarlet.

✓514 Shrub 5 ft. fruit globose, somewhat depressed, orange.

✓515 Vine, herbaceous, fls. white, no leaves on part accessible.

✓516 Woody vine, fls. white, standard with a showy purple center, other parts purplish at tip.

517 *Gynorium* Common along river

518 4 ft. fls. scarlet, dark-tipped.

519 Terrestrial; fls. white

✓520 fls. white.

521 *Axonopus*

522 Terrestrial

20523 Lasiacis Clambering, much branched.
524 "
525 Acaulescent or nearly so.
526 " " "
527 ✓ Shrub or tree up to 20 ft. fls. white.
528 Climbing.
529
530 Shrub 6 ft. fls. on bare stem.
531 ✓ Shrub 4-8 ft. fls rose.
532 ✓ Herb 4 ft.
533 ✓ Tree or shrub, 15 ft. fls. white.
534 ✓ Forest Isachne
535 ✓ " Panicum
536 ✓ Open places along trail in forest Panicum
537 ✓ Climbing
538 ✓ Edge of forest Chaetochlos, 6 ft.

Road through forest to Sucay July 7

20539 ✓ Vine, probably woody, but accessible
portion herbaceous.
540 ✓ Shrub, 6 ft.; fls. white, fading
pink, fruit black.
541 Basal stem 1 ft. fruit scarlet.
542 ✓ 15 ft. blade 4 ft. long, 14 in. wide
bracts scarlet above, 10 in
cluster.

20543 ✓ 12-15 ft., leaves in spiral, fls.
4 in. long, pale lilac, or white
tinged with lilac.

544 ✓ Shrub 8 ft; fls. scarlet.

545 Fruit of 20417

546 Terrestrial, fronds 10 ft.

547 " " 6 ft.

548 Herb. vine.

✓ 549 "

✓ 550 moist vertical face of rock; fls.
white.

✓ 551 woody vine, climbing high; fruit
3-angle. or with thick wings.

552 10551, more mature fruit.

553 Leaves 5 ft., smooth white.

✓ 554 Shrub 10-15 ft., fls. yellow fruit
scarlet.

Province Dueyes. Panigón plantation 2 miles south of Milagro.

July 11.

20555 xonopus, from Colombia, being tested by Mr.
Rorer as forage plant.

556 ✓ on along river Gynerium called "Cana veral".

557 ✓ Cut-over land Herb. vine; fls. blue.

558 Tree 40 ft. fls. yellowish green.
"Guarmo" firewood, fairly hard.

20559✓

Eriochloa

✓560

Imperata

Corn on, bad weed.

561✓

Tree, furnishes the wood

'neguito" soft, easily
worked, for inside timbers
and frame work of houses.

Trunk mostly straight
and excurrent; fls. white.

✓562

Eriochloa

Common along river and in low
land; looks like para grass
but finer. Called Joneiro
morado. Used as forage.
Nodes hirsute.

July 12

✓20563

Herb. vine; fls. rose-purple.

✓564 Old field

3-4 ft. herb. fls. white.

✓565 Weed in old field Rytillix

✓566 Edge of field

Andropogon

Large masses.

✓567

Tree 30 ft. fls. yellowish

green called "Jobo".

568

Lesiacis

✓569

"

✓20570 Eragrostis Annual, 4 ft. bunches of 8-10 culms.

✓571 Damp place Panicum

✓572 Shrub 6-10 ft.

✓573 Edge of woods Oplismenus

✓574 Straggling rather delicate herb,
stems up to 6 ft. long but low;
fls. white.

✓575 Herb. vine, fls. white.

576 Lesiecie

577 Phragmites? "Ceriza", gregarious, not in flower.

✓578 In oil field

✓579 In water Looks like our water hyacinth, fls.
white, upper petal with blue
patch at base and orange-yellow
spot at top of blue.

✓580 Moist place Panicum Large clump.

✓581 Cheetochloa Among Cynerium and shrubs.

July 13

20582 Used as shade for coffee & cacao also
wild; fls. white. "Gusbo de
Bejuco"

583✓ Tree 30 ft., fls. green. "Sapan de
Paloma"

20584 *Lasiacis* Note open panicle and small spikelets.

585 The common large bamboo; shows vigorous leaves of young shoots.

586✓ Herb 8 ft.; fls. yellow.

587✓ Woody vine.

588✓ Herb. vine, fls. rose-purple.

589✓ woody vine, fls. white.

590✓ Herb. vine, fls. rose purple.

591✓ "Palo prieto", used as shade for cacao; fls. standard salmon-yellow, wings red on upper half, keel very pale yellow tinged with red; tree up to 40 ft; trunk and branches with short prickles.

✓592 Shrub 8 ft.; fls. white.

✓593 Vine, flowering part at least herbaceous, fls. yellow.

✓594 "Physic nut" "Pinon". Used for live fence posts in dry land; will not endure water.

20595 Herb. vine, fls. white.

596 *Cenchrus* Annual, 2 ft. large clumps.

597 Common in sandy dry river channel, fls. yellow.

598 *Axonopus* "Gemalote" runners as much as 12 ft., on new soil along river.

599 *Lepturus* forming long slender runners as much as 4 ft., along river on new soil.

600 ✓ Cut-over land Herb. vine.

601 *Panicum*

602 *Pennisetum* strong brush & tall shrubs.

Province Chimborazo, Huigra July 16

Sry bushy slope, hill north of Huigra.

20603 ✓ Herb vine, thickly covering brush
near waterfall.

604 ✓ Same.

605 Rocky bank

606 ✓ Shady bank

607 Lesiacis Among shrubs

608 Chaetochloa Slender, or neheu, straggling among
shrubs, perennial.

609 Valota? Among shrubs

610 ✓ Dry hill tips

20611 ✓ Dry slope Bulbs; fls. rose-salmon except green lobes with white margins.

612 ✓ 3 ft.; fls. purple.

613 ✓ Eragrostis

614 ✓ Fls. rose-purple.

615 ✓ Long straggling vinelike; fls. rose to blue or purplish.

✓ 616 Andropogon

✓ 617 Shrub 3 ft.; fls. yellowish.

✓ 618 Herb. vine; fls. yellow with orange veins on the 2 large petals.

✓ 619 Shrub 1 ft.; fls. white.

✓ 620 Herb $\frac{4}{4}$ ft.

621 Heteropogon (probably 20329)

622 Fls. white.

✓ 623 Annual; some plants with hard woody base, others delicate.

✓ 624 Shrub 3-4 ft; fls. rose-magenta.

✓ 625 " 4-10 ft; fls. rose-scarlet.

✓ 626 Andropogon Large bunches on dry slope.

✓ 627 Dry slope Muhlenbergia Large bunches.

✓ 628 " " Heteropogon

629 " " Brachytria

20630 Dry slope 3-6 ft.; fls. yellow.
631✓ " " Vine, seems to be herbaceous; fls.
brilliant scarlet.
632✓ " " 3-6 ft.; fls. yellow.
635✓ " " Large cluster of leaves at base;
inflorescence 3-6 ft, bracts and
calyx scarlet, corolla white.
634 ✓ Somewhat shrubby, much branched,
4-6 ft.; fls. yellow.
635 Shady bank *Loreillema* Common.

Prov. Chimbiorao Huigra to Maranjabata along railway.

July 17

20636 Herb.vine; corolla liliac, filaments
of crown crossbarred with liliac
and purple.
637 Moist slope near Herb. vine, fls. white; fruit very
Maranjabata spiny, spines rather soft, hirsute-lanate but point rigid.
638✓ Dry bank bulb soft, fls. yellow.

20639 ✓ Wet cliff, Maransjapata Erect, caulex scarcely above
soil; fls. white.

40 ✓ probably 20639

41 ✓ Rocky cliff Fls. rose-purple.

✓ 42 Leaves of preceding flowering
Begonia with stem 1 ft.
high.

✓ 43 Partly shady slope Tripsacum, large bunches, 4-6 ft.
44 Fungus on 20643

✓ 45 Tree or shrub, 10-15; fls.
(stigmas?) purple

✓ 46 woody? vine; infl. pendulous,
fls. orange-yellow, standard
and wings blotched with
purple.

47 Moist cliff

✓ 48 Cliff and dry banks Fls. red, tinged with orange.

✓ 49 Straggling herb. 3 ft, fls.
lilac-purple.

✓ 50 Herb. 2-3 ft. fls. pale purple.

✓ 51 " 4-6 ft. fls. greenish yellow.

✓ 52 Moist bank Kaempferia

53 Stony bank Andropogon, probably 20616 but less pubes-
cent.

✓20654 Moist place *Chaetochloa* Straggling among shrubs.

✓55 Stony bank *Andropogon* xanicle loose branches spreading (cf 20653)

56 " slope *Paspalum* Among shrubs.

✓57 *herb* 3-8 ft.; fls. pale yellow or creamy, greenish outside; stems & foliage densely covered with prickle-like hairs fls. not open in Jorondon.

✓58 Along track

✓59 Stony bank *Pennisetum* Heads brown-purple.

✓60 Dry slope *Andropogon*

✓61 *Aristida* Aarul.

62 fls. of a preceding no., fls. scarce fruiting season.

✓63 Stony hill small tree 10-20 ft., no leaves, branches and trunk with short prickles; fls. scarlet.

✓64 small gnarled tree or shrub 5-10 ft. rose-scarlet-pale rose fading to dark rose.

✓65 Along Ry. Prostrate mats.

20666✓ Pls. to go with 20642

67✓ Shrub 6-8 ft.; fls. yellow-green.

68 Among brush *Lemnaceum* Up to 10 ft.

69^v Stony slope " 5-6 ft., or taller, much branched above.

70✓ Straggling half-shrub, 3-4 ft.; fls. creamy white.

71 Hanging from wet cliff.

72^v Moist place in shade *Isanicum*

73^v Near Baranjapata. Herb. vine.

74^v Moist woods " " pods explosive.

75 Wet cliff Fls. yellow.

76 Rocky slope Terrestrial, blades splotched with purple.

77^v " " *Andropogon*

78^v " " Fls. white.

79 " cliff Terrestrial.

80^v Moist slope *Lereilema*

81^v Rocky cliff often in large bunches of prickly bracts with a few flowers. Fls. scarlet. No large leaves (except 1 specimen), probably come at different season.

20682✓ Among brush rather Chaetochloa
moist place

83✓ Shrub 8-15 ft.; fls. whitish
green.

84 3 ft.; fls. white.

85✓ Shrub or small tree 6-15 ft.;
fls. scarlet, fruit black.

Prov. Chimborazo, Alausí July 19

20686✓ Grassy slope Nassella Common

87✓ Open cut Aristida Annual

88✓ Ry. "

89✓ Open ground along Ry. Bromus

90✓ " " " " Eragrostis (not pilosa

91 Open grassland Nassella

92✓ Branched, 3-4 ft.

93✓ 2-4 ft.; fls. green.

94✓ " " scarlet.

95 Along Ry. Chloris

96✓ Open grass land Bouteloua Common

97✓ " " " 2-4 ft.; fls. rose-purple.

98 " " " Stipa Common

99✓ " " " Shrub 8 ft. fls. green.

20700✓ " " " Cortaderia Large bunches on hillsides,
basal cluster 3 ft. infl.
6 ft. head rose-tinted.

20701	Open grass land	Stipa	
02✓	Along arroyo		Straggling, much-branched, 4-8 ft.; fls. magenta-purple, sticky.
03✓			Similar to 20702 but less sticky.
04✓	Open grassland		Half shrub 1-2 ft. rays white.
05✓	Along bank		1-2 ft.; fls. lavender.
06✓			Shrub 4-8 ft, forming close leafy mass. fls. white.
07	Open cut	Festuca	Common but too old.
08✓		Stipa	
09✓	Grassland	Sporobolus	Common
10✓	A long Ry.		4-6 ft.
11✓	Hillside		Fls. rose-purple.
12✓	Grassland	Stipa	Common.
13✓	Hillside	Eragrostis	"
14	On bank		Prostrate.
15✓	Open cut		Fls. pale rose.
16	" grassland	Aristida	Common but too old; all blades curly.
17	" "	Bouteloua	
18	" "	Eragrostis	Common
19✓			Shrubby fls. lavender
20✓			2-4 ft.; fls. rose & blue.

20721	Open grassland	Stipa	Common
22 ✓	" among cactus	Agropyron	
23	Along cut	Paspalum	
✓24			Shrub 3-4 ft.; fls. rose-purple.
✓25			2-4 ft.; fls. scarlet.
✓26			3-6 ft.
✓27	Grassland	Stipa	Common
✓28			Shrub 4-6 ft.; fls. brown-purple.

Prov. Chimborezo, Huigra, road toward Cuenca, up hill to south.

July 20.

20729	Dry hill		Woody vine, fls. white.
✓30	Along irrigation stream		Fls. yellow.
✓31	Dry hill		2-3 ft.; fls. yellow.
✓32	Moist shady place,		Fls. white with reddish throat.
✓33	Dry slope		Shrub 8-15 ft.; fls. white.
✓34	" "		Straggling 8-15 ft.; fls. lilac.
✓35	" "		Tree 20 ft.; fls. yellow.
✓36	" thicket		Shrub 10-15 ft.; fls. white turning pinkish.
✓37	" "		Shrub 8-12 ft.; fls. white.
38	Bushy slope	Melica	
✓39	On tree		Numerous leaves in basal cluster; infl. single spike 2 ft., fruit only.

20740 ✓ Shady place 2 ft.; fls. yellow.

41 Dry brushy slope Chusquea Sterile, straggling, 8-15 ft.

✓ 42 Dry slope Small tree or shrub 10 ft.; fls. green.

✓ 43 " grassy " Stipa

✓ 44 " thicket L siacis Aspect of *L. divaricata* with zig-zag shoots, but panicle branched pubescent, & pubescent at throat of sheaths; ligule visible, clambering among shrubs.

✓ 45 Dry slope Shrub 2-3 ft.; fls. deep violet-purple.

46 " thicket Festuca

✓ 47 " " Herb. vine; fls. creamy white inside, base of crown purplish, outside greenish with purplish veins; fruit rose-purple on angles & base, finely throughout.

✓ 48 " " On tree.

49 " base of tree, fls. brownish-orange, center little darker

20750 10-15 ft, large shrub or tree,
fls. greenish white.

51 ✓ Shrub straggling up to 12 ft.,
branches spiny at base of
branchlets, spines slender
in pairs or clusters (on
older parts); rays scs. let.

Hillside north of Huigra, along old Ry. grade July 27

✓ 20752 Grassy hillside *Elionurus* Bunch
53 " " *Andropogon*
54 Moist thicket *Lasiacis* Clambering
55 " " 15 ft.; stems devoid
of leaves, rather
woody, but fragile,
much pith; infl.
terminal; fls.
white, pink-tinged.
✓ 56 " " On tree, no bulb; fls.
orange-salmon.
57 Grassy bank *Stipa*
58 ✓ " " *Eragrostis*
59 " " *Trisetum*
60 " " *Bromus*

✓ 20761 Grassy hill Aristida Old blades flat & flexuous.
62 Dirt cut Festuca
63 Moist thicket In tree, fls. yellow with
 brown-red spots.
✓ 64 Dry hill Shrub 3 ft.; fls. yellow.
65 Grassy hill Aristida
66 " Andropogon
67 Side of Cut "
68 " " Muhlenbergia
✓ 69 Dry hillside Tree 20 ft.; fls. yellow.
✓ 70 " hill Shrub 10 ft.; fls. white.
71 " " Stipa

Prov. Chimborazo Alausí July 27
Dry slopes

20772 Chaetochloa Common in dry regions of interior.
73 Eragrostis

20774 Cotopaxi Sta-
tion Kilo-
meter 414 Stipa July 27

Prov. Carchi, La Rinconada, a ranch between Ibarra and
Tuleán Aug. 10

20775 ✓ Shrub
76 Ravine
77 "
78 ✓ " or small tree; calyx red,
 corolla yellowish.

✓20779

Tree

80 Revine

81

82 Grassland Paspalum

83 Shady ravine

84 " "

✓85 Open slopes Fls. yellow.

✓86 Large shrub or small tree; fls. white.

✓87

✓88 Open ground

✓89 Shrub.

✓90 Somewhat shrubby.

✓91 Shrub fls. white.

✓92 Shrub.

✓93 " fls. red.

94

✓95 " " purple.

96 Fls. white.

97 Calamagrostis

✓98 Festuca

99 Bromus

20800✓ Agrostis

01✓ Fruit orange-red.

02✓ Fls. yellow.

03✓ 20790?

20804 Fls. orange red
805 Thick spike, nearly leafless
stem.
✓ 806 Small tree.
✓ 807
✓ 808
809 Ibarra, along adobe wall

Provinces Imbabura & Pichincha, Olavalo to Malchingui

Aug. 12

Shrubby roadside

✓ 20810 Shrub; fls. orange-yellow.
811 " " " red.
✓ 812 Small tree; fls. white.
813 " "
✓ 814 " " " pink.
815 Vine; fls. scarlet.
✓ 816 Small shrub fls. blue.
817 Dry cliff
818 Agropyron
✓ 819 Dry bank Aegopogon
✓ 820 Tree 25 ft.
✓ 821 Shrub; fls. lilac
✓ 822 Tree 25 ft.
✓ 823 Fls. orange-red.
✓ 824 " white.
✓ 825 Chusquea Straggling or clambering.

✓20826 Shrub; fls. scarlet.

827 Calamagrostis

828 Agrostis

✓829 Bromus

✓830 Damp shady place Chaetochloa

✓831 Valota

✓832 " " " Paspalum

833 Dry hills Chaetochloa Common

✓834 " slope Sporobolus

✓835 " "

✓836 " "

✓837 " " Small tree; fls. yellow.

✓838 Dry valley On trees.

✓839 " slope Shrub 10 ft.

840 Small tree.

✓841 Shrub, fls. bluish white.

842 Cactus to represent photo.

✓843 Small tree, fls. yellow & orange red.

✓844 Shrub.

Prov. Pichincha, Malechingui to Pomasqui wooded hillsides

Aug. 13

20845 Shrub

✓846 " fls. yellow.

✓847 " white

✓848 Small tree; fls. scarlet.

20849	Rocky slope	3570 M.
850	" "	" "
✓ 851	" "	
✓ 852	" "	" "
853	" "	" "
854	" "	" "
✓ 855	" "	<i>Cortaderia</i>
✓ 856	Bank	<i>Agropyron</i> Rhizomes.
✓ 857	Open places	<i>Agrostis</i> Small tufts.
✓ 858		Shrub rays white.
✓ 859	Rocky slope	Fls. pale yellow.
✓ 860		Aspect of pie-plant; blades 2-3 ft. in diam., circular in outline, but lobed & cleft. Infl. 18 inches long.
✓ 861		Small tree.
✓ 862		<i>Cortaderia</i> 5-8 ft.
✓ 863		<i>Neurolepis?</i> 5-8 ft. loose clumps or patches.
864		<i>Bromus</i>
✓ 865		<i>Festuca</i>
866		
✓ 867		Depending from bank.
✓ 868		Prickly shrub, fls. light purple.

✓20869 Shrub

870

871

872

✓873 Small tree

✓874 Rocky bank

✓875 Calamagrostis

✓876 Cliff

877 "

✓878 Small shrub

✓879 Shrub, fls. red with yellow
tip.

880 Vine, fls. white.

✓881 8 ft.

✓882 Fls. lilec-blue.

883 Cliff

✓884 Shrub, fls. red.

✓885 "

✓886 Stipa

887 "

✓888 Small tree.

✓889 Shrub, fls. blue.

890 " " " lilac.

891

✓892 Shady place

✓893 Fls. blue.

✓20894		Shrub; fls. pink purple.
✓895		" " white.
✓896		On herbs and shrubs, fls. and infl. shining white.
897	Eragrostis	
898	Stipa	
899	Polypogon	
900	"	
901	Stipa	
902	Eragrostis	
903	Andropogon	
904	Eragrostis	
905	Notholcus	Common escape from cult.

20906-908 blank

Prov. Carchi, Paramos, 12 miles west of Tuleán	Aug. 10.
20909 ✓ Among bunches of grass	Fls. yellowish-green.
20910 ✓	Bush 2-4 ft.
911 ✓ Eastern edge of paramo.	No trunk, cottony white, fls. exceeding leaves.

✓ 20912 Covering large areas, miles in extent, the dominant plant; forms trunk as much as 15 ft. tall, the old leaves in a mass below the terminal tuft; flowers shorter than leaves & in their axils; rays yellow, disk dark brownish yellow. (See photo). Spanish name "Freilihón", applied also to 20911.

✓ 20913 Among 20912, boggy place.

✓ 914 " " *Calamagrostis* Large tufts

✓ 915 " " Mostly scattered; inflorescence 8-12 ft., woolly, covered with spiny bracts; fls. blue-indigo in round heads that make up the columnar spike-like inflorescence (see photo) blades 3-5 ft. Spanish name Achupalla.

✓ 916 *Calamagrostis* Large bunch grass. Common among 20912.

✓ 917 Among bunches of grass with 20912.

✓ 918 *Calamagrostis* Large bunches among 20912.

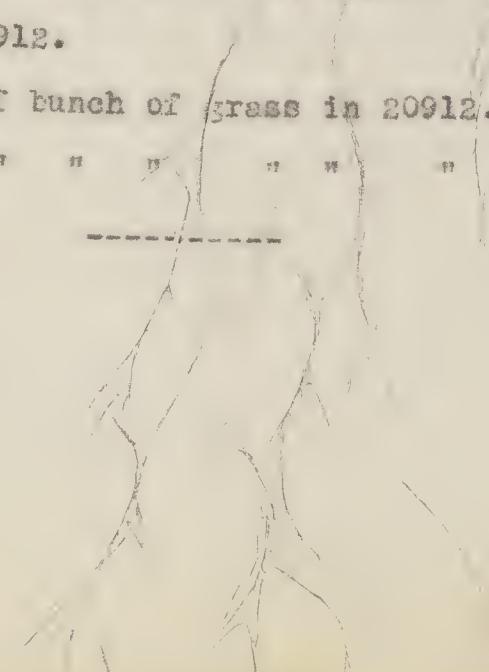
919 *Poa*, " " " "

✓ 920 *Agrostis* " " " "

✓20921

Calanag-Agrost? Culms few or single, among
20912.

✓922 *Bromus* Panicle drooping among 20912.
✓923 Mats on sides of bunches of grass among 20912
✓924 Mats on base of bunches of grass; fls. yellow " "
✓925 Scattered among bunches of grass in 20912.
✓926 " " " " " "
✓927 Bog in cover of 20912; infl. whitish, only flowering portion
above ground. At base is one branch, the infl., and
another with leaves.
✓928 Small shrub scattered among bunches of grass in 20912. fls.
yellow.
✓929 Boggy place in 20912 } Fls. orange-yellow.
✓930 Bog in 20912 } Fls. purplish white.
✓931 " " " } " greenish white.
✓932 Mats among bunches of grass in 20912.
✓933 Bog in 20912
✓934 Among bunches of grass in 20912.
935 Bog in 20912.
936 On base of bunch of grass in 20912.
937 " " " " " " } fls. pink.



Prov. Carchi, La Rinconada, ranch between Ibarra and Tulcán.

Aug. 11.

20938 Weed in yards Festuca

939✓ Small tree, common along fences and ditches, apparently not indigenous; fls. pendulous, dull orange red toward mouth, sometimes yellow or orange (see photo).

940✓ Thickets Shrub; fls. white.

941 On trees. Fls. pink spotted with dark purple (photo).

942✓ Bog in mts. 2-3 ft.; fls. blue (Collected by Sr. Tomaya's men) (see photo).

943✓ Straggling 8-10 ft.; fls. and 1 or more leaves white.

944 Fungus on 20943

945✓ On tree Leaves mostly purple.

946✓ Shrub 15 ft; fls. yellow.

947✓ Tree 20 ft.; fls. blue.

948✓ Herb 10-12 ft.; fls. yellow.

949✓ Shrub 12-15 ft.

950✓ Bog in mts. (Brought in by Sr. Tomaya's men); fls. red outside, yellow within.

951✓ Shrub 5-10 ft.; fls. and heads light salmon.

✓20952

Shrub or tree up to 20 ft., long
upright branches; fls. pale
yellow.

Prov. Carchi, wooded hills south of Tulcán Aug. 10

20953 ✓

954 ✓

955 ✓

Fls. blue.

956

957 ✓

958

Trisetum

✓959

Woody vine.

960

✓961

✓962

✓963

Straggling shrub or vine, fruit
purple.

✓964

Shrub; fls. light purple.

✓965

966 ✓

967

Paspalum

✓968

969

✓970

✓971

972

Calamagrostis

973 ✓

21000✓ Vine; fls. salmon-pink.
001✓ Shrub; fls. yellow.
✓002 "
003 "
004✓ " fls. blue.
005✓
006✓
007✓
008✓ *Polypogon*
009✓ *Brachypodium*
010✓
011✓ ~~Trisetum calycinostis~~
012✓ Prickly shrub; fls. pink-purple.
013✓
014✓
015
016✓
✓017
018 *Bromus*
019 *Torresia*
✓020 Fls. yellow.
021✓ *Agrostis*
022✓
023✓

21024 ✓

025 ✓

026 ✓ Aegopogon

027 ✓ Bromus

028 ✓ "

029 Creeping

030 ✓

031 ✓ Calamagrostis

032 ✓

033

034

035 ✓

036 Poa

037 Stipa

038 Bromus

039 ✓ "

040 ✓ Trisetum

041 ✓ Briza

042 Grass

043

044 ✓ Small shrub; fls. white.

045 Agrostis

Prov. Pichincha, Mt. Pichincha near Quito. Alpine region
(3900-4500 M) Aug. 17, 1923.

21046 Fls. yellow

✓047

048✓ ~~Calamagrostis~~ Poa

049✓

050✓ Plant pink.

✓051 Fls. blue.

052✓ Small shrub; fls. white.

053✓ Agrostis

054✓

055✓ Head drooping.

056✓ Fls. blue.

057✓

058✓ "

059✓ Trisetum

060✓ Fls. white.

061✓ Mats.

062✓

063✓ ~~Calamagrostis~~

064✓

065✓ Thick spike with rosette on sub-terranean branches.

21066 ✓

067 ✓

068 ✓

Acaulescent; fls. yellow.

069 ✓

" " white.

070 ✓

" " "

071 ✓

Shrub, 3-6 ft.

072 ✓

073 ✓

Large cushions.

074 ✓

075 ✓

076 ✓

077 ✓

078 ✓

" "

079 ✓

" "

080 ✓

081 ✓

082 Agrostis

083 Poa

Bunch grass

084

085 ✓

Calamagrostis

086 ✓

087 ✓

Shrub, 3-5 ft.

-69-

Prov. Carchi, wooded hills south of Tulcan Aug. 10

21088✓

089

090

Shrub

091

092

Stipa

093

Agropyron

094

Festuca

095✓

096 ✓

097 ✓

098✓

Twining vine; fls. scarlet.

099✓

Guayaquil Aug. 25

21099½

Phragmites

Prov. Oro, between Machala and Puerto Bolívar

Aug. 26, 1923.

21100 Swamp near P. Bolívar. Rhizophora.

101 Border of Swamp Sporobolus
near P. Bolívar.

102 (Cotton) Well established and rather abundant in the low brush.

103 Along track Sporobolus

104✓ Brackish swamp

21105 ✓ On shrubs near swamp

106 ✓ " " " Inflorescence pale or whitish.

107 ✓ Cactus Climbing, not common.

108 " Common.

109 Opuntia " fruit reddish

110 ✓ Shrubs 5-10 ft; fls. yellowish white.

111 ✓ " 5-8 ft.

112 " with vine like branches.

113 ✓ " 3-5 ft.

114 ✓ Common back of swamp.

Prov. Oro Between Santa Rosa & La Chorita Aug. 27

Along trail

21115 ✓ 5 ft.; fls. red.

116 ✓ Erect, 3 ft.; fls. scarlet.

✓ 117 " " " "

118 Fls. white, berries red.

✓ 119 4-8 ft.; bracts red.

✓ 120 On trees

✓ 121 Shrub; fls. scarlet.

✓ 122 10 ft.; fls. pale olive-green or yellowish.

✓ 123 8 ft.; fls. scarlet.

✓ 124 6 ft.; fls. pink.

21125 ✓ herb. vine; fls. scarlet.

126 Damp woods Olyra Branching.

127 ✓ Shrub; fls. pale-scarlet.

✓128 Herb 5-8 ft, stinging hairs,
viscous; fls. white with
salmon eye.

✓129 Vine; fls. salmon-scarlet.

130 Lasiacis

131 "

132 On trees

✓133 Wet woods

134 Olyra

135 On tree

136 Moist bank Ichnanthus

137 Chaetochloa

138 Paspalum

139 Fls. orange-salmon-yellow.

✓140 6 ft. fls. greenish

✓141 Straggling shrub up to 15 ft.,
fls. scarlet.

✓142 Herb 5-10 ft.; fls. scarlet.

✓143 Shrub or tree 4-15 ft.; fls.
white.

144 Dry brushy land, Herb 10 ft.; fls. white.

✓145 8-10 ft.; fls. lilac.

146 Lasiacis

✓21147 Straight, stiff leafless trunks,
with pink-scarlet infl.

✓148 Shrub 8 ft.

✓149 " 12 ft.; fls. magenta with
pale eye.

✓150 " 8 ft.; fls. yellow.

151

✓152 Vine; fls. white.

✓153 Shrub, 10 ft.; fls. white.

✓154 " " " magenta.

Prov. Oro. Between La Chorita & Portovelo Gold mine Aug. 28,
1923.

✓21155 Along stream Tree 30 ft. fruiting infl. red
Fernán Sánchez.

156 Bank along road Pennisetum

157 Dry open grassland Arundinella

✓ 158 5-8 ft.; fls. white.

159

✓160 Tree, fls. white.

✓161 Vine, climbing tree trunk by
rootlets.

✓162 On log

163 Climbing, fls. white.

21164 ✓ Shrub; fls. white.

165 ✓ Tree; fls. red.

166 ✓ " calyx and pedicel red,
corolla pink-salmon, tip
whitish.

167 Tree or shrub with vinelike
branches.

168 Erect, partly shrubby; fls.
scarlet.

169 ✓ " partly shrubby; fls.
scarlet.

170 ✓ Leaf 3-5 ft; infl. basal,
calyx scarlet, corolla
white.

171 ✓ Shrub 8 ft.; fls. white.

172 ✓ " " " "

173 ✓ " 6 ft. " yellow.

174 ✓ Twining, climbing high, a
single drooping infl. at
end; calyx crimson-scarlet;
corolla white with dark
purple spots.

175 Shrub, mostly without leaves.

176 ✓ " corolla white.

177 Oplismenus

178 " 6 ft.

21179 ✓ On tree Inflorescence 2 ft. bracts scarlet with green tips; fls. white.

180 Lasiacis

181 ✓ Moist bank Axonopus

182 ✓ Tree; fls. whitish.

183 ✓ Shrub 10-15 ft.; fls. purple.

184 Lasiacis

185 ✓ " 4 ft.; fls. purple-blue.

186 ✓ " 15 ft.; fls. pink.

187 ✓ "

188 ✓ " 10-15 ft.

189 ✓ Moist open ground Paspalum

190 On tree trunk Fls. scarlet (same as Huigra plant on rocks).

191 Open moist grassland Panicum

192 Moist cliff Calmagrostis

193 " bank Axonopus

194 ✓ Tree; fls. scarlet, corolla cream.

195 ✓ Small shrub; fls. blue.

196 Lasiacis

197 Shrub

198 Tree; fls. scarlet.

199 ✓ Moist bank Ichnanthus

✓21200 Moist bank *Panicum*
201 Erect shrub; 3 ft.; fls. pale red.
✓202✓ *Ichnanthus*
203✓ Shrub 6-15 ft.; fls. purple-blue.
✓204 Moist bank *Paspalum*
205 *Isachne*
206 *Paspalum*
✓207 "
208 " fls. yellow.
✓209 " 8 ft.; fls. white.
210 "
✓211 Moist bank *Panicum* Much branched.
✓212 " " " "
✓213 " " *Ichnanthus*
✓214 Shrub 5 ft.; fls. purple-blue

Prov. Oro Portovelo Gold Mine Aug. 30 River valley.

21215✓ Near stream Woody vine; fls. rose.
216✓ " " tree 40 ft. (a) fls (b) fruit
217✓ On tree along river Woody vine; fruit scarlet.
218✓ " " " " panicle about 1 ft. long
219✓ " " " "
220✓ " " " "

21221 On tree, dry hill

222✓ " "

223 ✓ Dry hill Tree 30-40 ft. no leaves.

224✓ On tree, dry hill; Fls brilliant rose, the lip darker with white border.

225 (burned)

✓226 Dry hill Tree 20-30 ft.; fruit yellow.

227 (burned)

✓228 Dry hill Large tree leafless, fls. bright yellow. "Pol -pole"

✓229 Small tree, mostly leafless; fls. lilac with red stripes in center.

✓230 Along river Woody vine, fls. white, fading cream or yellowish.

✓231 Dry slopes Shrub or small tree; fls. white.

✓232 Along river " " " " ". blue and purplish or rose-lilac.

233 Dry hill On tree.

✓234 " "

235 (burned)

✓236 Dry hill Woody vine, fls. pale scarlet.

237✓ " " Parasite on tree; fls. scarlet at base; cream above.

238✓ " Tree 40 ft.

239✓ " " On tree.

✓21240 Dry hill On bark of tree.

241 " " " tree; fls. greenish white with purple spots, the lip white with yellowish center.

242 (burned)

243 ✓dry hill Tree 20 ft. with stubby branches; no leaves.

244 (burned)

245 ✓dry hill On tree

246 ✓" " " "

247 " " " "

248 " " " "

249 " " " "

250 " " " "

251 On hill at mine *Andropogon* Introduced?

252 " " " " *Leptochloa*

253 " " " " *Panicum*

254 " " " " *Axonopus*

Along river below Portovelo. Aug. 31.

21255 On tree.

256 Boggy place *Panicum*

257 " " *Paspalum*

258 ✓Surface of pools

259 ✓dry hill On tree.

260 " " *Andropogon* Common

21261 Dry hill Andropogon Common.
 262 " " Imperata
 263 " " Andropogon
 264 Common along river; fls. white.

— 1 —

Sept. 1

21265 ✓ Tree 40 ft. or more, fruit only.
"Amarillo" a good mine timber.

266 *Chaetochloa*
267 *Axonopus*
268 *Eragrostis*
269 *Paspelum*
270 *Trachypogon*
271 *Andropogon*
272 ✓ Small tree; fls. yellow.
273 ✓ *Chaetochloa*
274 *Andropogon*

The trip from Portovelo to Loja (nos. 21275 to 21439) 3 days on horses with 2 cargo animals and 2 helpers. No drying till Loja was reached. Prov. Oro Portovelo to El Tambo. Sept. 2.

21275 Dry wooded slopes Terrestrial; fls. rose.
276✓ Tree, leafless; fls. scarlet.

21277✓ On tree, fls. pale salmon.

278 Andropogon

279✓ Fls. white.

280 Olyra

281✓ Shrub; fls. white.

282✓ Tree; fls. yellow with brown stripes.

283✓

284 Arundinella

285✓ Shrub; fls. white.

286

287✓ Tree; fls. white.

288✓ Imperata

289 " " " or greenish.

290✓ Shrub, leafless; fls. yellow.

291✓ Tree; fls. yellow.

292✓ (21235)

293 Aristide

294 "

295 Woody vine; fls. blue.

✓296 1-3 ft.; fls. rose.

✓297 Fls. greenish white, fruit bright red; "Fernan Sanchez"

21298 ✓ (21225)
299 ✓ On tree
300 Panicum
301 (cf 21279)
302 "
303 Ichnanthus
304 On tree
305 Aristida Perennial, old blades curled.
306 Paspalum
✓307 Shrub; fls. white.
308 Tree; fls. yellow-green.
309 Panicum
310 Pennisetum
✓311 " " white.
✓312
313 Andropogon
314 Dry hills "
✓315 Small tree 20 ft; fls. white.
316 Ichnicum
✓317 4 ft.; fls. orange-yellow
✓318 Shrub; fls. white.
✓319 Tree; fls. rose.
320 "
✓321 " " white.

Prov. Loja 'l tambo to La Toma, Sept. 3.

✓333 Small tree; fls. white.
✓334 On tree; fls. lilac blue.
✓335 Side of cliff Andropogon
✓336 Grassy slope Axonopus
✓337 Tree
✓338 Shrub; fls. white, rose tinged
"Cucharilla".
✓339 Large shrub; fls. white with
few brown spots.
✓340 Leafless tree; fls. scarlet.
✓341 Shrub 8 ft.; fls. lilac-blue.
✓342 Tree; fls. crimson.
✓343 Shrub, single stem or with few
stubby branches, leafless;
fls. brownish yellow.
✓344 On tree, large basal cluster;
fls. bright rose.
✓345 Tree; fls. red.
✓346 Shrub; fls. white.
✓347 2-4 ft.; fls. dark violet.
✓348
349 Fls. salmon-vermillion.
✓350 Field in small valley Fls. canary yellow.

21351 ✓ On tree Infl. lilac; fls. white, upper half of livid purple, fragrant.

352 ✓ Hedges and borders of fields Fls. white.

353 Grassy slope Aristida

354 ✓ Shrub 2-6 ft.; fls. salmon-orange.

355 ✓ Tree, standard green, other petals white.

356 On tree Bracts red or yellow.

✓357 " " Infl. reddish; fls. white.

✓358 " " Tree; fls. white.

✓359 Tree; fls. white

✓360 " " Fls. purple.

✓361 Tree; fls. violet-blue.

✓362 Large shrub; fls. white.

✓363 Tree; fls. white.

✓364 On tree Fls. cream.

✓365 Tree.

✓366 " fls. white.

Prov. Loja. Between La Toma and Loja Sept. 4

21367 ✓ Moist bank.

✓368 On tree Tips of bracts red.

369 Moist bank Poa

21370 stinging; fls. red.
✓371 Shrub 6 ft.; fls. green.
372 Fls. rose.
✓373 Small tree; fls. red.
✓374 Tree; leaves leathery.
✓375 Large shrub; fls. white.
✓376 Shrub; fls. scarlet.
✓377 Small shrub; fls. white.
✓378 Terrestrial.
379 Moist bank
380 " " Agrostis
381 " " Stipa
382 " "
383 On tree
384 Moist bank Poa
385 Trisetum
386 " ", cluster of basal leaves,
spikes axillary.
387 On tree
388 Chusquea
✓389 " trees and terrestrial 3 outer petals olive-brown, lip
and 2 narrow petals greenish
yellow.

✓21390 Shrub; fls. orange-yellow.

391 " 6 ft.; fls. salmon.

✓392 Tree; fls. violet blue.

✓393 Shrub; fls. white.

✓394 On tree Parasite.

✓395 Along road, probably planted, native? Tree

396

397 Dry sandy slope Bouteloua

398 " " Aristida

399 " " Bouteloua

400 " brushy hill Trichloris

401 " " " Eragrostis

402 " " " Panicum

403 " " " Chloris

404 Arroyo Aristida

✓405 Tree; fls. yellow with brownish eye.

✓406 Clay slope

407 Dry hill Eragrostis

408 " slope Aristida

409 " " Chloris

410 " hill Eragrostis

✓411 " " Shrub

✓412 On tree Inflorescence red; fl. purplish.

413 Shrub; fls. white.

✓414 " " " inside, pinkish outside.

21415 shrub 3-4 ft.

416 ✓ "

417 ✓ " 1-4 ft.; fls. white.

418 Dry hill Sporoholus

419 " slope Zygophyllum

420 Moist slope Lanicum

421 Grassy slope Axonopus

422 ✓ Shrub; fls. crimson.

423 " prickly, fls. orange-red.

424 (cf preceding number)

425 ✓ Climbing 1-2 ft.; spathe greenish white, spadix brownish.

426 ✓ On tree Parasite, yellowish green, berries white.

427 ✓ Shrub; fls. red.

428 ✓

429 ✓ " " white.

430 Moist bank Poa

✓ 431 Shrub; fls. yellow.

✓ 432 On tree Fls. pale yellow. (Is this 21389?)

433

434 ✓ 1-2 ft.

435 ✓ Shrub; fls. white.

436 ✓ " " pink.

437 ✓ " 2-6 ft.; fls. orange red..

21438 ✓

Shrub; fls. scarlet

439 ✓ Dry slope

Cortaderia

Prov. Loja, between Loja and San Lucas. Sept. 6

21440.

Shrub 3-6 ft.; fls. scarlet.

21441 ✓ On tree

lnfl. 3 ft., red, fls. purple.

442

" only; fls. red. (cf another number).

443 ✓ " "

" 2 ft.

444 ✓ Grassy bank in open woods. Triniochloa

445 Moist bank

446 ✓

Tree; fls. greenish.

447 ✓ Bank of river

"

448 ✓ On tree

449 ✓ Terrestrial

Fls. green.

450

" blue.

451

" orange.

✓ 452 Moist bank

" yellow.

✓ 453 " "

" lilac.

454 Brushy bank Isachne

455 Shady bank Poa

✓ 456

Tree; fls. green, rose-tinted.

457 Rocky open place Agrostis

458 ✓

Shrub or small tree; fls. white.

461 ✓ tree 30 ft. along road, may be cult.

460 ✓ tree; fls. creamy white.

461 Dry slope Epicampes

462 Moist bank Poa

463 Dry slope Sporobolus

464 Paspalum

465 Aonopus

466 Agrostis

✓467 Moist bank Herb; fls. white.

468 Eromus

469 Dry slope Trachyodon

✓470 Vine; fls. dull red.

471 ✓ Shrub; fls. green & rose.

472 Moist bank

473

474 ✓ " 8 ft.; fls. white.

475 " "

476 Open ground " "

477 ✓ Grassy hillside *Setaria* *lennisetum*

478 Dry sk pe *Cortaderia* Large clumps.

479 ✓ Terrestrial fls. green.

✓480

21481 Grassy slope *Andropogon*
482 " " " *Pennisetum*
483 " " " *Axonopus*
484 " " *Eragrostis*
485 Open clay slope
486 " " " *Chestochloa*
487 " " " grass
488 " " *Bromus*
489 " " *Andropogon*
✓ 490 Terrestrial fls. red, li. orange red.
491 Grassy slope *Paspalum*
✓ 492 " " " rays orange.
✓ 493 Along Agave hedge fls. orange-red.
✓ 494 " " " " dull red.
495 " " " *Paspalum*
✓ 496 " " " 5 ft. straggling; fls. blue.
✓ 497 " " " shrubby vine; fls. lilac.
✓ 498 Along road & in fields 3-4 ft.; fls. white.
✓ 499 " " " 3-5 ft.; fls. pale scarlet.

Prov. Loja, between San Lucas & Ons. Sept. 17

Mostly on the paramos

✓ 21500 Moist slope fls. white.
.. 501 Rich moist woods no trunk, frond 5 ft. base brown
woolly.
✓ 502 Rich woods shrub; fls. white.
503 Moist bank

1504 Moist slope

505 Climbing high; fls. scarlet.

506 *Cortaderia*

507✓ Strigling or climbing, much branched; fls. yellow with brown veins.

508✓

509 Wet woods

510 Fls. red.

511 Terrestrial " green.

512 *Festuca*

513✓ Small tree; fls. white.

514 Shrub 8 ft.; fls. purple.

515 Shady bank

516✓ Shrub 3-6 ft.; fls. pale purple.

517 Brushy bank Large clumps.

518 Shrub or tree; fls. white.

519 Terrestrial Fls yellow; lip & inside of outer petals brownish.

520 Same as 215197 blades shorter

521

522✓ Herb 10 ft.; fls. greenish yellow.

523 Open ground *Stipa*

524 Grassy paramo *Danthonia*

✓ 525 Shrub 10 ft.; fls. white.

✓ 526 Bank Low shrub

✓21527 Shrub 5-6 ft., fls. yellow to pale red.

25 Bank Paspalum

✓629 Shrub 6-10 ft.; fls. scarlet to crimson.

530 Paramo Lanthonia

531 " Poa

532 " Calamagrostis

533 " "

534 " Agrostis

535 " Calamagrostis

536 " Paspalum

✓537 " Tree, 20-40 ft.

✓538 " Shrub 4 ft.

✓539 " Fls. greenish-yellow.

✓540 Small shrub; fls. white.

✓541

✓542 Paramo Fls. yellow-green.

543 ✓ " " white.

544 ✓ " Shrub 2-4 ft.

545 ✓ damp woods Tall herb; fls. pale yellow.

546 ✓ Paramo Shrub 4-8 ft.; fls. white.

✓573 Parreno	Shrub 3-6 ft.; fls. white, pink-tinged.
574 Terrestrial	Fls. yellowish-green, tip yellow.
✓575 Parreno	Shrub, 5 ft.; fls. bright rose.
✓576	Fls. white.
✓577	Shrub, 6 ft.
✓578 Field at Una	Fls. white.

—/—
Rev. Azucar una to Cuenco collections mostly on paramo
and woods just below.

Sept. 9

✓21579 Open moist bank	Reyes purple.
✓580	Shrub 10-15 ft. with erect branches; fls. limb white, tube creamy.
✓581	Shrub or small tree; fls. dark purple almost black.
✓582	Much branched shrub, 2-4 ft. Common on dry slopes in the hot river valleys, often dominant.
✓583	Shrub or small tree; fls. white.
✓584	Small tree.
585	On tree; fls. blue (a preceding number)
✓586 On tree	
✓587	Shrub 4 ft.; fls. vermillion.
✓588	" much branched 4-6 ft.; fls. white.

11809 ✓ much branched prickly shrub,
4-6 ft.; silvery white.

590 Paromo Stipe

591 " grostis

592 very ground shrub 2-4 ft.; fls. yellow.

593 Paromo grostis

594 ✓ " 2 ft. or less; fls. white

595 ✓ " 1-2 ft.; fls. white.

596 ✓ " creeping or spreading; fls.
white.

597 ✓ tree infl. 3 ft., red; large cluster
of basal leaves.

✓ 598 Paromo fls. white.

✓ 599 " woody ravine 4-5 ft.; fls. white.

✓ 600 " " " 5-6 ft. " yellow.

601 " moist place fls. yellow with brown veins.

602 " " " Lolium

603 " " " shrub 3-5 ft.; fls. scarlet pen-
dulous.

604 ✓ Paromo fls. yellow, lobes edged with
brown-orange.

605 " Neatella

606 ✓ shrub 8 ft.; fls. dark blue.

607 ✓ " " 3-6 ft. " orange-yellow.

608 Climbing or vine like, much branched.

✓609 2-3 ft.; fls. yellow.

Parrao and ocde just below 21-10 ^{Sept. 10} side of rocky cliff fls. pink-purple.

611 Along Agave hedge small tree; fls. white, pendulous.

✓612 Vine; fls. magenta, tube lilac-purple. (Observed same north of vito, high altitudes above Alcaingue)

✓613 Rich woods Terrestrial fls. yellow, spotted with brown, 3 narrow petals un petted.

✓614 3 ft.; fls. yellow.

✓615 Shrub 8 ft.; fls. white, clusters more or less pendulous.

616 shrub 8 ft.; fls. orange-red.

✓617 Large shrub; fls. orange-red.

✓618 Shrub 6 ft.; fls. red, yellowish.

619 Open bank in woods *Sortederia*.

✓620 Shrub 3-6 ft. with few upright branches; fls. orange-red.

✓621 Shrub with few branches; fls. white.

622 " 5 ft.

21623 ✓ Shrub or small tree 8-15 ft.; fls. red-brown.

634 ✓ " 6 ft. much branched and imbricate; fls. rose and white.

635 ✓ moist bank

636 " fls. blue.

637 Paramo, among grass.

638 Paramo Poa

639 ✓ Rich woods 3-5 ft.; fls. white.

640 Moist woods Poa

641 " Agrostis

642 " Stipe

✓643 Shrub, 10-15 ft.; fls. white.

✓644 " 8 ft.

645 Paramo spreading

✓646 Tree 40 ft.; fls. orange-red
(cf. 21617)

647 Paramo, bank.

648 " among grass

649 " Poa

650 " " grass

651 " fls. yellow.

652 " Agrostis

653 " Calamagrostis

654 " terrestrial fls. greenish.

✓ 645 Paramo, among grass fls. yellow.

✓ 646 " scattered on grassy hills; as much as 12 ft. tall
large cluster of leaves at base; fls. pale
greenish-blue. (Same as on Tulcan paramo among
freilijch)

47 Paramo Agrostis

✓ 648 " Shrub, creeping as much as 15
ft. over bare soil.

✓ 649 Paramo fls. nearly black.

✓ 650 " " yellow.

✓ 651 " " blue.

✓ 652 " Ocland Agrostis

653 "

654 " Agrostis

655 ✓ " fls. lavender-blue.

656 ✓ " Scattering; fls. white.

657 " Terrestrial; fls. green.

658 ✓ " (same as 21595 probably)

659 "

Provinces Azuay and Cañar, Cuenca to Huigra. Mostly through
cultivated valleys; collections mostly from woods below paramo
and on paramo.

Sept. 12

✓ 21660 Woods 6 ft. fls. dark blue.

✓ 661 Paramo Shrub 1-3 ft. rays white.

✓1132 Saramo	Shrub 3 ft.; fls. whitish.
✓ 663 Woods	" 8 ft. " white.
✓664 " "	" 6 ft.
✓665 " "	" " fls. pink-purple.
✓666 " "	Vine; fls. pinkish.
667 " "	Shrub 4 ft.; fls. scarlet.
668 " "	10-15 ft.; fls. pale yellow or greenish yellow.
✓669 " "	Tree; fls. greenish yellow.
✓670 Seed at Siblán 3-4 ft. fls. white.	

Saramos & woods of upper slopes. Sept. 13.

671 ✓ on tree	Fls. pink.
672 ✓ " "	Infl. 5 ft. unbranched, fls. light purple.
673 ✓	Climbing several feet, fls. rose scarlet, green tipped.
674 Moist shady ravine.	
675 ✓	Fl. stem 4 ft; cluster of leaves at base; fls. bluish green.
676 ✓	On tree. Infl. 3 ft. dull red; fls. lilac specimen is one of about a dozen spreading branches.

✓ 21677 Tree, 40 ft.; fls. light lilac-purple.

678 Herb.vine, stinging, fls. vermillion.

679✓ Climbing several feet; fls. dark scarlet.

680✓ Climbing several feet; outer petals light vermillion, inner yell w with brown spots.

681✓ Simple stems, 4-6 ft., fls. scarlet to crimson.

682 Moist bank Festuca

✓ 683 Tree, 30 ft.; fls. rose-crimson.

684 Vine Fls. red.

✓ 685 2-3 ft. stinging; fls. orange-red.

686 On tree

687 " " Inflorescence unbranched; fls. lilac, purple.

688 Shrub 4-6 ft.; fls. scarlet.

689 Paramo Calamagrostis

* 690 " Cortaderia

691 " grostis

✓ 692 " Fls. blue.

Prov. Tungurahua, Ambato, along Ry. to Riobamba Sept. 21.

703 Dry hill Stem 1 ft.; fls. scarlet.

704 " slopes *Chaetochloa* Large bunches; common.

705 Dry slopes and cliffs- terrestrial; large tangled bunch,
old stems 2-3 ft. long; fls. rose to dull scarlet.

706 Dry slope Shrub 2-4 ft. straggling, much
branched; fls. rose purple &
whitish.

21707 Ry. cut Fls. yellow.

✓708 Dry slope Low shrub; fls. blue.

709 " " Stipa

710 Paspalum Weed in alfalfa field.

✓711 Ry. cut Bromus

712 Along irrigation ditch

713 Ry. cut Andropogon

714 Along irrigat. ditch Agropyron

✓715 Sandy slope Cenchrus

716 Ry. cut Stipa

✓717 Dry ground Shrub 1 ft.; fls. white.

✓718 Bromus (21711 but smaller)

719 Dry slope Stipa

✓720 " " Shrub 3 ft. com on.

✓721 Springy place Long runners from lower part of stem; fls. purplish.

✓722 " "

✓723 " " Fls. yellow

✓724 Sandy Ry. cut Eragrostis Common on walls & open ground.

✓725 Springy place.

✓726 Moist ground near river Shrub 4-8 ft.; fls. purple tinged with white.

21727 Moist ground near river Shrub 5-8 ft. disagreeable odor;
 fls. greenish white.

728 *Eragrostis* (21724) common compact-panicled
 form.

✓729 Sandy Ry. cut

✓730 " " "

✓731 " " "

✓732 " " "

✓733 " " "

✓734 " slope

✓735 " soil Forms ashy thick mats, 2-3 ft.
 across; fls. blue.

✓736 " "

✓737 " "

✓738 " "

✓739 " "

✓740 " bank " "

✓741 " soil *Sporobolus*

742 *Eragrostis* Weed in garden.

✓743 Base of dry slope 3 ft.; fls. yellow.
 in ravine

744 Weed in garden.

✓745 dry ground *Stipa*

✓746 Tree 20 ft. wild plant growing
 in ground of Normal School;
 fls. white.

✓747 dry slope Shrub 1-2 ft.

21748 Sandy slope

Abundant, probably introduced.

Prov. Tungurabua, Valley of Pastaza River, Banos to Cashurco,
8 hours east of Banos

Sept. 25

✓ 21749 Open slope Paspalum

750 Shrub; fls. red.

✓ 751 Open slopes Ischaemum Common

✓ 752 " " Axonopus

✓ 753 Shrub or tree 15 ft.; fls. white.

✓ 754 Terrestrial, cliffs and rather dry banks. 3-5 ft. no bulb,
naked below; fls. lilac & dark lilac.

755 Ischaemum

✓ 756 Bushy moist bank Ischaemum

757 Ischaemum

758 Grassy bank

✓ 759 Cliffs & dry grassy slopes, terrestrial, 2-4 ft. no bulb
infl. often branching; fls. pink-purple.

✓ 760 Tree, 20 ft.; fls. lilac.

761 Grassy slope in moist place, Paspalum

762 Moist slopes Pennisetum Common

763 " woods

764 " "

765 " "

766 " "

767 " "

with prickling irritating hairs, used to flavor drinks.

Called Maranjilla (little orange); may be introduced,
found around houses and along roads.

21788	Wet woods	Fls. white.
✓ 789		Shrub 1-2 ft.; fls. pale lilac
✓ 790		Fls. red-vermilion
791	Along road	
792	Moist woods	Frond 3 ft.
✓ 793		Scarcely shrub; 6-12 ft.; fls. yellow.
794	Along trail	Fls. white.
✓ 795	Open ground	" yellow.
✓ 796	Banks and open ground	2-3 ft.; fls. white.
✓ 797	Clay slope in moist woods	Fls. light purple.
✓ 798		Herb. vine; fls. greenish white
799		Panicum
✓ 800	Moist bank	
	<i>800 1/2 Begonia</i>	
✓ 801	" woods	5 ft.; fls. pale yellow, bracts dark red.
✓ 802	Wet woods	Leaves 10 ft. blades 3 ft.; infl. terminal drooping; bracts scarlet; fls. pale yellow.

✓ 21821 Open ground 2-5 ft.; fls. white.
822 Shrubby bank *Pennisetum* 5-8 ft.
✓ 823 Among shrubs Fls. white.
✓ 824 Tree 15 ft.; fls white.
✓ 825 On old stump
✓ 826 Gassy bank *Axonopus*
✓ 827 Moist open ground Fls. light salmon.
828 On log
829 In woods
✓ 830 Edge of woods Fls. magenta.
✓ 831 Along trail,
 open ground Fls. white with purple eye.
✓ 832 Open ground by woods 2-4 ft.; fls. white.
✓ 833 Shrub 6-8 ft.; fls. yellow,
 bracts dark red.
834
835 Moist woods 3 ft. blades purple at tip;
 fls. yellow.
836 Shrub 6 ft.; fls. red, borne
 on old wood.
✓ 837 Moist shady place Fls. salmon pink.
838 Woods
839 On trees " dull red.

✓ 840 Moist bank Fls. white.

✓ 841 Moist rich bank " "

842 Grassy moist bank *Paspalum*

✓ 843 Open bank 3-6 ft.; fls. yellow.

✓ 844 Wet bank

845 ✓ Shrub; fls. white.

846 Woods "

✓ 847 " 8-10 ft.; fls. white.

✓ 848 " fl. white.

✓ 849 Wet woods " " yellow.

850 " bank Fls. yellow.

✓ 851 Vine, fls. white.

✓ 852 Wet shady bank Fls. vermilion.

✓ 853 " " " *Echinolaena*

✓ 854 Vine; fls. salmon-vermilion

855 Woods

856 *Lesiacis*

✓ 857 Moist open ground Fls. white.

858 Shady bank *Ichnanthus*

✓ 859 " "

✓ 860 Moist " Vine; fls. greenish.

✓ 861 On tree Fls. yellow.

✓ 862 Open moist bank *Panicum*

863 *Lesiacis*

864 Moist bank

865 ✓ " "

✓ 21866 Moist shady bank Fls. scarlet.
867 " ground *Panicum*
✓ 868 Shrub; fls. white.
869 Moist ground
✓ 870 Wet shady place Fls. vermillion.
871 " bank *Ichnanthus*
✓ 872 Open ground " white.
✓ 873 Shrub; fls. white.
✓ 874 Wet woods Fls. yellow.
✓ 875 Vine; fls. white.
✓ 876 10 ft.; fls. pink.
877 Fls. white.
✓ 878 Moist bank *Ichnanthus*
879 " shady ground *Panicum*
✓ 880 3-5 ft.; fls. white.
✓ 881 Along trail Fls. white.
✓ 882 10 ft. fls. white.
✓ 883 Moist woods 15 ft.; fls. white.
✓ 884 Shrub; fls. yellow.
✓ 885 Shady place Inflorescence red.
✓ 886 On log
887 Wet woods
✓ 888 Fls. yellowish white.
889 Moist bank
✓ 890 Shrub 10 ft.; fls. white.
✓ 891 Open ground Fls. white.

✓81892 Moist ground Creeping; fls. green.
893 " bank
✓894 Lesiseis
895 Open ground Chloris
896 On tree Fls. yellow with brown spots.
lip yellow.
897 Moist bank
898 ✓ 8-12 ft.

Prov. Tungurahua, Banos Sept. 26

21899

✓ 900 On adobe wall Stipe

✓ 901 " " " Eragrostis

✓ 902 " " " Chaetochloa

903 " " " Eragrostis

904 " " " Fls. greenish white.

✓ 905 " " "

✓ 906 Dry hills (between Banos and
Arbato) " yellow-green.

✓ 907 Dry bank " rose.

908 Grassy hill Axonopus

909 " " Poa

910 Dry hills " sea let.

✓ 911 Grassy hill Andropogon a few inches to 1 ft. or slightly
more.

✓ 912 " " Paspalum

913 " " Stipe

✓ 21914 Grassy hill *Eragrostis*
915 " " *Andropogon*
916 " " *Oplismenus*
917 Dry hill on
 rocks
918 Rock cliff
✓ 919 Rocky hill *Andropogon*
✓ 920 Stone wall *Stipa*
✓ 921 Rocky cliff *Muhlenbergia*
922 " " *Aegopogon*
923 " " *Festuca*
924 " "
✓ 925 " hill 2-4 ft. shrubby; fls. blue &
 violet.
✓ 926 Grassy hill *Festuca*
✓ 927 Dry hill Shrub 2-6 ft.
✓ 928 Along roads & fences probably planted. Tree 15-25 ft.
✓ 929 " fences (planted?) near Ambato
✓ 930 Among century plants near Ambato Vine.

Prov. Pichincha.uito Oct. 1.

931 Open ground along street. *Eragrostis*

932 " " " "

✓ 933 Given by Mr. Soderstrom from his garden; 2 petals bistre;
2 yellow, lip purple & white.

✓21934 Same Petals yellow with brown spots.
935 " The large petal yellow with brown spots.
✓936 " Fls. yellow brown.
937 " Petals nearly black, lip white.

Prov. Chimborazo, between Urbina & Mt. Chimborazo Oct. 4.

✓21938✓ 4240 M Fls. yellowish-orange, tinged
and veined with red.
939 4240 M Fls. light rose.
940 3780 M " yellow.
941 3780 M " "
942✓ " " white, dense head level
with ground.
943 " "
✓944 " Festuca Very common 3700-3900 M
945 " "
✓946 " "
✓947 " "
948 " Poa
✓949 " Calamagrostis Common 3700-3900 M
950 " "
951 " Festuca "
✓952 " Along irrigation ditch Fls. creamy white.
✓953 " " " " yellow.
✓954 4390 M " "

21955 ✓	4390 M	Calamagrostis
956	4545 M	Poa
957	4390 M	
958	4545 M	Bromus
959 ✓	"	Large cushions; fls. green.
960	"	
961 ✓	"	
962 ✓	"	Fls. dark blue.
963 ✓	"	Forms large cushions.
964 ✓	"	Plant salmon-red.
965 ✓	"	Upper limit of vegetation.
966 ✓	"	Freilejón, heads in infl. 1, sometimes 2, rarely 3.
967 ✓	"	Poa Culms mostly single.
968 ✓	"	Calamagrostis?
969	"	
970	"	
971	"	
972 ✓	"	Forms small cushions.
973 ✓	"	Aspect of conifer.
974 ✓	"	Fls. white.
975 ✓	"	" blue.
976 ✓	"	Forms cushions, fls. greenish
✓ 976 1/2		white.
✓ 977	"	Small cushions " white.
978 ✓	4240 M	Festuca Bunchgrass, common.

21979 4240 M *Bromus* Aspect of *B. porteri*, culms
mostly single.

980 ✓ " *Calamagrostis* Bunchgrass common from 3000-
4400 M.

981 " *Agrostis*

982 ✓ " "

983 ✓ " *Danthonia* Bunches 1 ft. diam. radiating
only seen in one locality.

984 ✓ " *Poa* Culms mostly single.

985 ✓ " *Calamagrostis*

986 " *Poa* Bunchgrass common.

987 ✓ " Mats; fls. lilac.

988 ✓ " "

989 " Fls. white.

990 ✓ " " "

991 ✓ 4090 M " lilac-mauve.

992 ✓ " " yellow.

993 ✓ " *Agrostis*

994 " *Festuca* Bunchgrass.

995 ✓ " Small tufts, level surface;
fls. yellow.

996 ✓ " "

997 ✓ " Rays lilac to nearly white.

21998 ✓ Fls. lilac.

999 ✓ Agrostis

22000 Mats.

001 ✓ Small cushions (appears to be mixture).

002 ✓ " Rather common.

003 ✓ By irrigation

ditch 3940 M Bromus (21979)

004 " " Poa Bunchgrass common.

Prov. Chimborszo, Urbina, paramo on east flank of Mt. Chimborszo, collections along Ry. Oct. 5.
on banks of cuts or ditches.

22005

006 ✓ Patch along bank.

007 ✓ Side of cut Agrostis

008

009 Fls. yellow.

✓ 010 " scarlet.

011 Poa

012

013

014 ✓ Agrostis (cf 21999)

22015 Agrostis

016 ✓ "

017 Poa

018 ✓ Along cut Stipe Bunches

019 ✓ Trisetum?

020 ✓ "

021 ✓ Large bunches or cushions.

022 ✓ Hanging in masses from top of hill.

023 ✓ Hanging in cushions on level ground. Common.

024 ✓

025 ✓ Fls. white or pink.

026 ✓ Festuca

027 ✓ " " " " tinged.

028 "

029 Trisetum

030 ✓ Festuca Bunch grass common.

031 ✓

032 ✓ Mats, roots deep.

033 ✓

034 ✓

035 ✓ Along cut On level ground forms cushions or mats.

036 ✓

037

22038

039✓ Open ground Prostrate with deep tap root.

040 ✓ " Annual prostrate.

041 ✓ " Mats.

042 " Fls. rose with purple spots.

043 ✓ Mats.

044 " " perennial; fls. purplish.

045 ✓ *Agrostis*

046✓ Open ground

047 ✓ "

048✓ Edge of cut Hanging

049 ✓ Fls. blue-purple.

050✓ Heads level with surface; fls. white; leaves 2-ranked, often, especially in sterile plants, lying sidewise on the ground.

o = Not at Gray Herb.

LIST OF DETERMINATIONS OF PLANTS COLLECTED IN ECUADOR BY
A. S. HITCHCOCK.

- o 19069. *Rumex cuneifolius* Campd.
- ✓ 19928. *Portulaca elatior* Mast.
- ✓ 19970. *Iresine diffusa* Willd.?
- ✓ 19971. *Gomphrena perennis* L.
- ✓ 19978. *Phloxeris vermicularis* (L.) R. Br.
- ✓ 20004. *Psittacanthus obovatus* Benth.
- ✓ 20009. *Boerhaavia caribaea* Jacq.
- ✓ 20017. *Passiflora hispida* DC.
- ✓ 20052. *Celosia virgata* Jacq.
- ✓ 20079. *Achyranthes aspera* L.
- ✓ 20095. *Castalia ampla* Salisb.
- ✓ 20106. *Alternanthera halimifolia* (Lam.).
- ✓ 20118. *Iresine diffusa* Willd.?
- ✓ 20149. *Passiflora reflexiflora* Cav.
- ✓ 20164. *Alternanthera sessilis* (L.).
- ✓ 20183. *Hemistylis boehmerioides* Benth.
- ✓ 20192. *Adenaria floribunda* H. B. K.
- ✓ 20208. *Boerhaavia caribaea* Jacq.
- ✓ 20211. *Talinum paniculatum* (Jacq.) Gaertn.
- ✓ 20229. *Adenaria floribunda* H. B. K.
- ✓ 20280. *Radicula nasturtium-aquaticum* (L.) Britten & Rendle.
- ✓ 20282. *Microtea debilis* Sw.
- ✓ 20293. *Chamissoa altissima* (Jacq.) H. B. K.
- ✓ 20309. *Lepidium bipinnatifidum* Desv.
- ✓ 20312. *Allionia prostrata* (R. & P.) Kuntze.
- ✓ 20314. *Alternanthera paniculata* H. B. K.
- ✓ 20332. *Clematis sericea* H. B. K.
- ✓ 20370. *Myriocarpa stipitata* Benth.
- ✓ 20373. *Allionia prostrata* (R. & P.) Kuntze.
- ✓ 20377. *Bocconia integrifolia* H. & B.
- ✓ 20380. *Rumex conglomeratus* Murray.
- ✓ 20392. *Phenax laevigatus* Wedd.
- ✓ 20404. *Pilea hyalina* Fenzl.
- ✓ 20431. *Urera baccifera* (L.) Gaud.
- ✓ 20532. *Hemitylis boehmerioides* Benth.
- ✓ 20583. *Trema micranthum* (L.) Blume.
- ✓ 20631. *Passiflora manicata* (Juss.) Pers.
- ✓ o 20636. " *sprucei* Mast.
- ✓ 20650. *Allionia bracteosa* Griseb.
- ✓ o 20662. *Clematis sericea* H. B. K.
- ✓ 20673. *Valeriana candolleana* Gardn.
- ✓ 20683. *Tovaria pendula* R. & P.
- ✓ 20702. *Allionia prostrata* (R. & P.) Kuntze.
- ✓ 20703. " " " "
- ✓ 20715. *Erodium cicutarium* (L.) L'Hér.
- ✓ 20747. *Passiflora rubra* L.
- ✓ 20788. *Cerastium willdenovii* H. B. K.
- ✓ 20790. *Pilea arguta* (H. B. K.) Wedd.
- ✓ 20803. " " " "

- ✓20813. *Phrygilanthus destructor* (H. B. K.) Eichl.
- ✓20815. *Passiflora manicata* (Juss.) Pers.
- ✓20820. *Alnus ferruginea* H. B. K.
- ✓20848. *Phrygilanthus corymbosus* (Dietr.) Eichl.
- ✓◦ 20866. *Lepidium bipinnatifidum* Desv.
- ✓◦ 20870. *Cremolobus peruvianus* DC.
- ✓◦ 20911. *Culcitium rufescens* H. & B.
- ✓20934. *Ranunculus praemorsus* DC.
- ✓◦ 20937. *Geranium cucullatum* H. B. K.
- ✓20950. *Ranunculus guzmanni* Humb.
- ✓20959. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.
- ✓20966. *Geranium quinquelobum* Wedd.
- ✓20979. *Hypochaeris sessiliflora* H. B. K.
- ✓21000. *Passiflora mixta* L. f.
- ✓21025. *Acaena elongata* L.
- ✓21044. *Valeriana alophis* Graebn.
- ✓21046. *Werneria pumila* H. B. K.
- ✓21049. *Cerastium floccosum* Benth.
- ✓21052. *Valeriana bonplandiana* Wedd.
- ✓21054. *Culcitium rufescens* H. & B.
- ✓21064. *Eudema nubigena* H. & B.
- ✓21068. *Hypochaeris setosa* (Wedd.).
- ✓21070. " " "
- ✓21084. *Cerastium imbricatum* H. B. K.
- ✓21112. *Cryptocarpus pyriformis* H. B. K.
- ✓21237. *Psittacanthus cupulifer* (H. B. K.) Eichl.
- ✓21333. *Cyathostegia pachanoi* Rose.
- ✓21377. *Valeriana hieronymi* Graebn.
- ✓21405. *Libidibia corymbosa* (Benth.) Rose.
- ✓21406. *Drymaria stellaroides* Willd.
- ✓◦ 21413. *Escoffonia floribunda* H. B. K.
- ✓◦ 21445. *Pilea thymifolia* (H. B. K.) Blume.
- ✓21447. *Juglans honorei* Dode.
- ✓21460. *Phrygilanthus punctatus* (R. & P.) Eichl.
- ✓21467. *Valeriana urticaefolia* H. B. K.
- ✓21470. *Passiflora sanguinolenta* Mast.
- ✓21494. " " "
- ✓21540. *Valeriana hieronymi* Graebn.
- ✓21541. " " "
- ✓21589. *Chuquiraga argentea* (H. B. K.) Hieron.
- ✓21596. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.
- ✓21598. *Valeriana rigida* (Pers.) R. & P.
- ✓21607. *Berberis conferta* H. B. K.
- ✓21612. *Passiflora glaberrima* (Juss.) Poir.
- ✓21624. *Berberis conferta* H. B. K.
- ✓21633. *Valeriana hirtella* H. B. K.
- ✓21648. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.
- ✓◦ 21674. *Thalictrum podocarpum* H. B. K.
- ✓◦ 21698. *Berberis multiflora* Benth.?
- ✓◦ 21744. *Fumaria officinalis* L.
- ✓◦ 21748. *Mesembrianthemum crystallinum* L.

- ✓ 21825. *Pilea hitchcockii* Killip. Type
- ✓ 21882. *Boehmeria elongata* Blume?
- ✓ 21910. *Sisymbrium hispidulum* (DC.) Tr. & Pl.
- ✓ 21942. *Valeriana rigida* (Pers.) R. & P.
- ✓ 21947. *Ranunculus peruvianus* Pers.
- ✓ 21966. *Culcitium rufescens* H. & B.
- ✓ 21965. *Cerastium floccosum* Benth.
- ✓ 21970. *Culcitium ferrugineum* Klatt.
- ✓ 21972. *Hypochaeris setosa* (Wedd.).
- ✓ 21976. *Eudema remyana* (Wedd.) O. E. Schulz.
- ✓ 21988. *Geranium acaule* Willd.
- ✓ 21990. *Cerastium glutinosum* H. B. K.
- ✓ 21992. *Ranunculus peruvianus* Pers.
- ✓ 21996. *Cerastium glutinosum* H. B. K.
- ✓ 22022. *Muhlenbeckia vulcanica* Endl.
- ✓ 22025. *Geranium acaule* Willd.
- ✓ 22032. *Arenaria serpens* H. B. K.
- ✓ 22033. *Lepidium bipinnatifidum* Desv.
- ✓ 22358. *Mesembrianthemum* sp.
- 22359. " "
- 22363. *Chenopodium bolivianum* Murr.
- 22372. *Gomphrena perennis* L.

November 22, 1924.

Hitchcock's Plants from Ecuador

Identified by H. A. Gleason, except some followed by the initials N.L.B.

- ✓ 19918 *Ipomoea crassicaulis* (Benth.) Robins.
- ✓ 921 *Malachra alceaefolia* Jacq.
- ✓ 939 *Plumbago scandens* L.
- ✓ 942 *Aeschynomene americana* L.
- ✓ 945 *Dolicholus minimus* (L.) Medic.
- ✓ 958 *Quamoclit coccinea* (L.) Moench.
- ✓ 965 *Pithecellobium candidum* Benth.
- ✓ 972 *Jacquemontia nodiflora* (Desv.) G. Don
- ✓ 980 *Cyperus oxylepis* Nees (N.L.B.)
- ✓ 981 *Mimosa acanthiloba* Poir.
- ✓ 986 *Leucaena canescens* Benth.
- 20023 *Cassia picta* Doh. (N.L.B.)
- 025 *Ipomoea purpurea* (L.) Lam.
- 026 " *aegyptia* L.
- ✓ 033 " *Nil* (L.) Roth.
- ✓ 044 *Melochia lupulina* Sw.
- ✓ 049 *Justicia comata* (L.) Lam.
- ✓ 060 *Physalodes physalodes* (L.) Britton
- ✓ 089 *Thalia geniculata* ~~fx~~ L.
- ✓ 090 *Eleocharis geniculata* (L.) R & S (N.L.B.)
- ✓ 099 *Pistia stratiotes* L.
- ✓ 116 *Sida rhombifolia* L. - In hb. as *S. salviaefolia* Presl.
- ✓ 122 *Dolicholus minimus* (L.) Medic.
- ✓ 138 *Pithecellobium candidum* Benth.
- ✓ 146 *Dolicholus precatorius* (Humb.) Rose
- ✓ 173 *Fimbristylis meliacea* (L.) Vahl (N.L.B.)
- ✓ 187 *Asclepias curassavica* L.
- ✓ 195 *Justicia comata* (L.) Lam.
- ✓ 205 *Mimosa pigra* L.
- ✓ 218 *Chamaecrista stenocarpa* (Vogel) Standl. (N.L.B.)
- ✓ 225 *Ipomoea Meyeri* (Spreng.) D. Don
- ✓ 249 *Mimosa pigra* L.
- ✓ 270 *Ipomoea aegyptia* L.
- ✓ 282 *Microtea debilis* Sw.
- ✓ 296 *Calopogonium coeruleum* DC.
- ✓ 298 *Adipera Hitchcockii* B. & R. (*Cassia*) (N.L.B.)
- 340 *Chamaesyce lasiocarpa* (Kl.) Arthur (N.L.B.) - In hb. as *Euphorbia lasiocarpa* Kl.
- ✓ 351 *Kyllinga brevifolia* Rottb. (N.L.B.)
- ✓ 371 *Physalodes physalodes* (L.) Britton
- ✓ 426 *Tradescantia geniculata* Jacq.
- ✓ 453 *Pleiotachya Morlaei* (Eggers) K. Schum.
- ✓ 464 *Ipomoea tiliacea* (Willd.) Choisy
- ✓ 471 *Euphorbia adiantoides* Lam. (N.L.B.)
- ✓ 476 *Calathea insignis* Peters.
- ✓ 506 *Potomorpha peltata* (L.) Miq.
- ✓ 516 *Bradburya Plumieri* (Turp.) Kuntze
- ✓ 557 *Calopogonium mucunoides* Desv.
- ✓ 563 *Ipomoea Meyeri* (Spreng.) D. Don
- ✓ 583 *Trema micranthum* (L.) Blume
- ✓ 588 *Bradburya pubescens* (Benth.) Kuntze
- ✓ 590 *Ipomoea Meyeri* (Spreng.) D. Don
- ✓ 600 *Ipomoea polyanthes* R & P
- ✓ 664 *Anneslia subnervosa* (Benth.) Rose
- 714 *Chamaesyce orbiculata* (HBK) (N.L.B.) *Euphorbia orbiculata* HBK. In hb.
- ✓ 730 *Hypericum uliginosum* HBK

20523. *Tobouchina hospita* (DC.) Hitchcock
21295. *Dioclea lehmanni* Diels (Under D. elegans?)

LIST OF DETERMINATIONS OF DR. A. S. HITCHCOCK'S PLANTS FROM
ECUADOR.

✓19918. *Ipomoea crassicaulis* (Benth.) Robinson.
✓19926. *Crinum cartwrightianum* Rose.
✓19928. *Tecoma gaudichaudii* DC. In hb. *Tecoma*
✓19930. *Ipomoea abutiloides* (H. B. K.) Don.
✓19933. *Plumbago scandens* L.
✓19936. *Ipomoea purpurea* (L.) Lam.
✓19938. *Cordia lutea* Lam. *Cordia*
✓19944. *Ipomoea meyeri* (Spreng) G. Don.
✓19950. *Momordica charantia* L.
✓19958. *Quamoclit coccinea* (L.) Moench.
✓19974. *Solanum nigrum* L.
✓19972. *Jacquemontia nodiflora* (Desv.) G. Don.
✓19979. " *corymbulosa* Benth.
✓19996. Mixture of *Salicornia peruviana* and *Batis maritima*.
✓20014. *Clerodendron molle* H. B. K.
✓20026. *Ipomoea aegyptia* L.
✓20027. " *dumetorum* (H. B. K.) Willd.
✓20033. " *nil* (L.) Roth.
✓20037. *Ipomoea* (*Operoulina*?) *setosa* Ker.
✓20053. *Mentzelia aspera* L.
✓20045. *Luffa cylindrica* (L.) Roem.
✓20072. " *operculata* (L.) Cogn.
✓20084. *Echinodorus bracteatus* Micheli.
✓20088. *Rotala ramosior* (L.) Koehne.
✓20099. *Pistia stratiotes* L.
✓20119. *Lycopersicum cerasiforme* Dunal.
✓20155. *Operculina codonantha* (Benth.).
✓20187. *Asclepias curassavica* L.
✓20196. *Momordica charantia* L.
✓20227. *Ipomoea quinquefolia* L.
✓20225. " *meyeri* (Spreng.) G. Don.
✓20235. *Heteranthera reniformis* R. & P.
✓20269. *Ipomoea polyanthes* R. & S.
✓20270. " *aegyptia* L.
✓20276. *Cynoctomum mitreola* (L.) Britton.
✓20286. *Hydrolea spinosa* L.
✓20307. *Achnistus arborescens* (L.) Schlecht.
✓20314. *Altemanthera paniculata* H. B. K.
✓20331. *Quamoclit coccinea* (L.) Moench.
✓20337. *Lycopersicum cerasiforme* Dunal.
✓20357. *Solanum nigrum* L.
✓20371. *Nicandra physalodes* (L.) Pers. In hb. as *Physalodes physalodes* L. Britton
✓20396. *Anagallis pumila* Sw.
✓20421. *Campelis zanonia* (L.) H. B. K.
✓20428. *Aneilema ovato-oblongum* Beauv.
✓20464. *Ipomoea tiliacea* (Willd.) Choisy.
✓20469. *Browallia americana* L.

✓ 20486. *Spigelia anthelmia* L.
✓ 20488. *Vincentia encifolia* Bockl.
✓ 20563. *Ipomoea meyeri* (Spreng.) G. Don.
✓ 20579. *Piaropus azureus* (Sw.) Raf.
✓ 20590. *Ipomoea meyeri* (Spreng.) G. Don.
✓ 20593. *Prestonia glabrata* H. B. K.
✓ 20600. *Ipomoea polyanthes* R. & S.
✓ 20611. *Phaedranassa tricolor* Rose & Killip.
✓ 20638. *Eucrosia morleyana* Rose.
✓ 20657. *Wigandia crispa* (R. & P.) H. B. K.
✓ 20667. *Buddleia americana* L.
✓ 20728. *Iochroma loxensis* Miers.
✓ 20735. *Tecoma azaleaeflora* H. B. K.
✓ 20769. " " "
✓ 20770. *Tournefortia undulata* R. & P.
○ 20781. *Gentiana sedifolia* H. B. K.
✓ 20787. *Satureia nubigena* (Kunth) Briq.
✓ 20793. " *microphylla* (Kunth) Briq.
○ 20804. *Stenomesson hartwegii* Lindl.
✓ 20823. " *aurantiacum* Herb.
✓ 20839. *Sphacelae conferta* Benth.
○ 20840. *Buddleia americana* L.
✓ 20846. *Columellia sericea* H. B. K.
○ 20849. *Plantago linearis* H. B. K.
✓ 20939. *Datura rotti* Safford.
✓ 20940. *Viburnum glabratum* H. B. K.
✓ 21072. *Plantago sericea* R. & P.
✓ 21075. *Gentiana sedifolia* H. B. K.
✓ 21104. *Avicennia nitida* Jacq.
○ 21118. *Xiphidium coeruleum* Aubl.
✓ 21125. *Dombeya lappacea* L'Hér.
✓ 21133. *Maranta arundinacea* L.
✓ 21152. *Jacquemontia nodiflora* (Desv.) G. Don.
✓ 21158. *Cantua quercifolia* Juss.
✓ 21231. *Solanum mandonis* Huexot. & Muell. Arg.
✓ 21243. *Urera baccifera* (L.) Gaud.
✓ 21285. *Icacorea guyanensis* Aubl.
✓ 21327. *Mayepaea pubescens* (H. B. K.).
✓ 21392. *Iochroma grandiflora*.
✓ 21437. *Satureia taxifolia* (Kunth.) Briq.
○ 21442. *Dombeya lappacea* L'Hér.
✓ 21496. *Plumbago coerulea* H. B. K.
✓ 21498. *Solanum sisymbifolium* Lam.
✓ 21500. *Tofieldia falcata* (R. & P.) Pers.
✓ 21527. *Satureia taxifolia* (Kunth) Briq.
✓ 21577. *Sphacelae radula* Benth.
✓ 21578. *Sambucus peruviana* H. B. K.
✓ 21618. *Desfontainea spinosa* R. & P.
○ 21635. *Satureia nubigena* (Kunth) Briq.
✓ 21636. *Buddleia incana* R. & P.

✓21670. *Solanum marginatum* L. f.
✓21693. *Satureia jamesoni* (Benth.) Briq.
✓21729. *Plantago psyllium* L.
✓21772. *Dombeya lappacea* L'Hér.
◦21788. *Campelia zanonia* (L.) H. B. K.
✓21854. *Gurania*
✓21930. *Cynanchum quitense* K. Sch.
◦21943. *Plantago cumingiana* F. & M.
◦21945. *Plantago linearis* H. B. K.
◦21960. *Lysipoma montioides* H. B. K.
✓21987. *Satureia rubigena* (Kunth) Briq.
✓22034. *Plantago linearis* H. B. K.
22365. *Nothoscordum andicolum* Kunth.
22366. *Specularia perfoliata* DC.
22367. *Sisyrinchium chilense* Hook.
22371. *Nicotiana paniculata* L.
22373. *Solanum radicans* L. f.
22377. *Cordia peruviana* R. & S.
22369. *Pasithea caerulea* Don.
22404. *Orthocarpus australis* Benth.
22407. *Ipomoea dumetorum* (H. B. K.) Willd.
22419. *Verbena clavata* R. & P.
✓20513. *Carica heterophylla* Poepp. & Endl.
◦22411. *Gnaphalium purpureum* L. (or ally).

May 22, 1926.

Hitchcock (Ecuador)

Habenaria

✓20909. *H. meyeri-Mohannis* Gilg (Compared with type at Berlin).
✓21539. *H. weddelliana* Gilg (Compared with type at Berlin).

DETERMINATIONS OF PLANTS COLLECTED BY A. S. HITCHCOCK
IN ECUADOR.

- 19921. *Malachra alceifolia* Jacq.
- 19928. *Tecoma* (not *Portulaca elatior* of preceding report.)
- 19934. *Melochia lupulina* Sw.
- 19942. *Aeschynomene americana* L.
- 19945. *Dolicholus minimus* (L.) Medic.
- 19951. *Abutilon reflexum* (Cav.) Sweet.
- 19954. *Buettneria parvifolia* Benth.
- 19956. *Indigofera subulata* Vahl.
- 19983. *Melochia pyramidata* L.
- 19985. *Jussiaea erecta* L.
- 20003. *Ammannia auriculata* Willd.
- 20013. *Muntingia calabura* L.
- 20021. *Canavalia leptophylla* Piper?
- 20028. *Malachra fasciata* Jacq.
- 20042. *Buettneria parvifolia* Benth.
- 20044. *Melochia lupulina* Sw.
- 20046. *Sida rhombifolia* L.
- 20070. *Cochlospermum hibiscoides* (Willd.) Kunth.
- 20075. *Cuscuta americana spectabilis*. (Det. T. G. Yuncker.)
- 20086. " " " congesta.
- 20094. *Cardiospermum grandiflorum* Sw.
- 20113. *Hibiscus brasiliensis* L.
- 20116. *Sida salviaefolia* Presl.
- 20120. *Parosela barbata* (Oerst.) Rydb.?
- 20123. *Dalechampia scandens* L.
- 20131. *Abutilon cordatum* Garcke & Schwmm.
- 20141. *Cuscuta prismatica* Pav. (Det. T. G. Yuncker.)
- 20150. *Chamaesyce lasiocarpa* (Kl.).
- 20167. *Phyllanthus carolinensis* Walt.
- 20181. *Pavonia sepium* St. Hil.
- 20191. *Melochia lupulina* Sw.
- 20203. *Dalechampia scandens* L.
- 20204. *Chamaesyce thymifolia* (L.).
- 20210. *Teucrium vesicarium* Miller.
- 20212. *Acalypha subcastrata* Aresch.
- 20221. *Triumfetta lappula* L.
- 20239. " "
- 20248. *Pavonia paniculata* Cav.
- 20267. *Euphorbia heterophylla* L.
- 20277. *Jussiaea suffruticosa* L.
- 20296. *Calopogonium coeruleum* DC.
- 20302. *Parosela astragalina* (H. B. K.).
- 20320. *Cuscuta odorata* R. & P. (Det. T. G. Yuncker.)
- 20338. *Buettneria parvifolia* Benth.
- 20340. *Chamaesyce lorentzii* (Muell.)?
- 20345. *Cardiospermum grandiflorum* Sw.
- 20368. *Parosela astragalina* (H. B. K.).
- 20372. *Pavonia sepium* St. Hil.

- 20483. *Allophylus*
- 20501. *Centropogon cornutus* (L.) Druce. (Det. H. A. Gleason)
- 20507. *Pseudabutilon spicatum* (H. B. K.) Fries.
- 20551. *Gouania polygama* (Jacq.) Urban.
- 20552. " " " "
- 20561. *Muntingia calabura* L.
- 20623. *Chamaesyce lasiocarpa* (Kl.).
- 20645. *Acalypha padifolia* H. B. K.
- 20658. " *poiretii* Spreng.
- 20665. *Chamaesyce serpens* (H. B. K.).
- 20714. " " "
- 20745. *Parosela astragalina* (H. B. K.).
- 20779. *Vallea stipularis* Mutis.
- 20785. *Bidens humilis* (not 20875 of preceding report).
- 20816. *Parosela astragalina* (H. B. K.).
- 20844. *Coursetia dubia* H. B. K.
- 20852. *Juncoides racemosum* (Desv.) Kuntze.
- 20854. " *giganteum* (Desv.).
- 20896. *Cuscuta foetida* H. B. K. (Det. T. G. Yuncker.)
- 20917. *Alchemilla galiooides* Benth.
- 20952. *Siphocampylus umbellatus* (H. B. K.) G. Don. (Det. H. A. Gleason)
- 20963. *Coriaria thymifolia* H. & B.
- 20971. *Alchemilla tripartita* R. & P.
- 20976. " *orbiculata* R. & P.
- 20998. *Oenothera multicaulis tarquensis* (H. B. K.) Munz & Johnston.
- 21017. *Geum chilense*.
- 21032. *Viola tricolor* L.
- 21047. *Juncoides peruvianum* (Desv.) Kuntze.
- 21067. *Astragalus geminiflorus* H. B. K.
- 21078. *Azorella pedunculata* (Spreng.) Wedd.
- 21095. *Geum chilense*.
- 21096. *Cuscuta grandiflora* H. B. K. (Det. T. G. Yuncker.)
- 21141. *Malvaviscus*
- 21154. *Hibiscus brasiliensis* L.
- 21169. *Centropogon planchonis* Zahbr. (probably). (Det. H. A. Gleason)
- 21174. *Bomarea pardina* Herb.
- 21217. *Paullinia fuscescens* H. B. K.
- 21317. *Siparuna*
- 21350. *Oenothera fusiformis* Munz & Johnston (type).
- 21365. *Weinmannia reticulata* R. & P.
- 21376. *Centropogon erianthus* (Benth.) B. & H. (Det. H. A. Gleason)
- 21435. *Weinmannia macrophylla* H. B. K.
- 21446. *Siparuna*
- 21471. *Phyllanthus salviaefolius* H. B. K.
- 21474. *Abutilon sylvaticum* (Cav.) Schum.
- 21476. *Fragaria vesca* L.
- 21505. *Bomarea setacea* (R. & P.) Herb.
- 21518 1/2. *Weinmannia microphylla* H. B. K.
- 21559. *Fragaria vesca* L.

Labels written *Vallesia*

- 21545. *Centropogon comosus* Gleason (type).
- 21616. " *longifolius* Wimmer. (Det. H. A. Gleason)
- 21668. *Siphocampylus umbellatus* (H. B. K.) G. Don. (Det. H. A. Gleason)
- 21669. *Abatia parviflora* R. & P.
- 21679. *Bomarea porphyrophila* Kränzl.
- 21681. *Centropogon hitchcockii* Gleason.
- 21683. *Vallea stipularis* Mutis.
- 21684. *Tropaeolum tuberosum* R. & P.
- 21688. *Fuchsia umbrosa* Benth. (Det. I. M. Johnston.)
- 21697. *Lavatera assurgentiflora* Kell.
- 21702. *Cuscuta odorata* R. & P. (Det. T. G. Yuncker.)
- 21706. *Coursetia dubia* H. B. K.
- 21707. *Melilotus indica* (L.) All.
- 21721. *Epilobium denticulatum* R. & P.
- 21723. *Jussiaea repens* L.
- 21779. *Pavonia nemoralis* St. Hil.
- 21780. *Anoda cristata* (L.) Schl.
- 21959. *Azorella pedunculata* (Spreng.) Wedd.
- 21989. *Stellaria cuspidata* Willd.
- 22006. *Acaena argentea* R. & P.
- 22023. *Alchemilla orbiculata* R. & P.
- 22031. *Stellaria cuspidata* Willd.
- 22035. *Azorella biloba* Wedd.
- 22046. *Stellaria cuspidata* Willd.
- 22239. *Vicia bidentata* Hook. Arn.
- 22354. *Cristaria*
- 22390. *Bowlesia palmata lacerata* Kuntze.
- 22403. *Oenothera arequipensis* Munz & Johnston (type).

February 24, 1925.

19924 *Heliotropium indicum* L.
19927 *Piqueria densiflora* Benth.
19931 *Brickellia diffusa* (Vahl) Gray
19939 *Corchorus pilolobus* Link.
19967 *Eupatorium iresinoides* HBK.
19976 *Isocarpha divaricata* Benth.
20019 *Eupatorium Roseorum* Robinson
20070 *Cochlospermum hibiscoides* (Willd.) Kunth.
20127 *Eupatorium odoratum* L.
20139 " *iresinoides* HBK.
20142 " *Roseorum* Robinson
20145 *Dalechampia scandens* L.
20165 *Lippia reptans* HBK.
20170 *Heliotropium inundatum* Sw.
20182 *Lantana trifolia* L.
20189 *Eupatorium Roseorum* Robinson
20203 *Dalechampia scandens* L.
20206 *Lippia geminata* HBK.
20228 *Eupatorium inulaefolium* HBK., f. *suaveolens* (HBK.) Hieron.
20231 " *laevigatum* Lam.
20242 *Adenostemma Lavenia* (L.) Ktze.
20310 *Eupatorium solidaginoides* HBK.
20317 *Mentzelia soratensis* Urb. & Gilg
20338 *Buettneria*
20346 *Piqueria peruviana* (Gmel.) Robinson
20355 *Mikania cordifolia* (L. f.) Willd.
20363 *Eupatorium odoratum* L.
20377 *Bocconia integrifolia* (Humb. & Bonpl.) DC.
20390 *Eupatorium odoratum* L.
20511 " *obtusisquamsum* Hieron.
20515 *Mikania cordifolia* (L. f.) Willd.
20594 *Jatropha Curcas* L.
20649 *Eupatorium huigrense* Robinson
20651 " *solidaginoides* HBK.
20724 *Malvastrum peruvianum* L.
20734 *Eupatorium odoratum* L.
20821 *Duranta triacantha* Juss.
20847 *Eupatorium glechonophyllum* Less.
20860 *Gunnera pilosa* Kunth.
20861 *Cleome glandulosa* R. & P.
20882 *Eupatorium lamiifolium* HBK.
20890 *Duranta triacantha* Juss.
20980 *Eupatorium cotacachense* Hieron.
20893 " *salicinum* Lam.
21002 " *origanoides* HBK.
21051 *Nototrichie pichinchensis* (H. & B.) Hill.
21090 *Eupatorium salicinum* Lam.
21122 *Cleome gigantea* L.
21124 *Eupatorium vitalbae* DC. Gilg
21128 *Loasa triphylla* Juss., var. *aequatoriana* Urb. &
21145 *Eupatorium Roseorum* Robinson
21158 *Cantua quercifolia* Juss.
21198 *Norantea anomala* HBK.
21207 *Eupatorium laevigatum* Lam. Hieron.
21209 " *inulaefolium* HBK., f. *suaveolens* (HBK.)
21228 *Cochlospermum hibiscoides* (Willd.) Kunth.
21296 *Eupatorium amygdalinum* Lam.
21311 *Euplassa occidentalis* Johnston, n. sp.
21322 *Jatropha Curcas* L.
21330 *Capparis scabrida* HBK. (= *C. gaudichaudiana* Eichl.)
21331 *Cercidium praecox* (R. & P.) Harms
21332 *Jatropha nudicaulis* Benth.?
21338 *Embothrium grandiflorum* Lam.
21341 *Eupatorium buddleiaefolium* HBK.
21348 " *longipetiolatum* Sch.-Bip.,
var. *arbusculare* Robinson
21395 *Escallonia pendula* (R. & P.) Pers.
21411 *Dodonaea viscosa* Jacq.
21537 *Escallonia tortuosa* HBK.
21538 *Eupatorium exserto-venosum* Klatt,
var. *pseudofastigiatum* (Hieron.) Robinson
21580 *Cantua pirifolia* Juss.
21582 *Dodonaea viscosa* Jacq.
21599 *Eupatorium pichinchense* HBK.
21615 " *Pachanoi* Robinson
21664 " *pseudoriganoides* Hieron.
21678 *Cajophora aequatoriana* Urb. & Gilg
21683 *Vallea*
21696 *Mikania chimbazensis* Hieron.
21720 *Dodonaea viscosa* Jacq.
21731 *Xanthium spinosum* L.
21738 *Argemone mexicana* L.
21740 *Tribulus cistoides* L.
21796 *Klaprothia mentzeloides* HBK.
21814 *Eupatorium bullatissimum* Robinson, spec. nov.
21872 " *lloense* Hieron.
21875 *Mikania pastazae* Robinson, spec. nov.
21876 *Eupatorium Hitchcockii* Robinson, spec. nov.
21880 " *nemorosum* Klatt
21905 *Malvastrum peruvianum* (L.) Gray
22010 *Castilleja fissifolia* L.
22084 *Eupatorium ivaefolium* L.
22107 " *morifolium* Mill.
22129 *Mikania Ruiziana* Poepp.
22468 *Eupatorium Volkensii* Hieron.
21374 *Oreopanax Andreanum* Marchal cf. *O. sessiliflorum*
(Benth.) Decne. & Planch.
21375 " *avicenniaeefolia* (HBK.) Decne. & Planch.

A. S. Hitchcock

Plants of Ecuador

Coll. 1923.

Supplementary list of determinations made at the Gray Herbarium.

20558 *Guazuma ulmifolia* Lam.
20822 *Oreopanax ecuadorensis* Seem.
20954 *Viola Humboldtii* Trian. & Planch.
21168 *Fuchsia spectabilis* Hook.
21440 " *hypoleuca* Johnston n. sp.
21560 *Viola arguta* HBK.
21603 *Fuchsia Hitchcockii* Johnston n. sp.
21667 " *apiculata* Johnston n. sp.
21750 " *glaberrima* Johnston n. sp.
21781 " *scabriuscula* Benth.
21818 *Mikania Hitchcockii* Robinson n. sp.

city of this list
sent Dr. Major
Dec. 6, 1924 by J. M. K.

o = not at Gray Herb.

PLANTS COLLECTED IN ECUADOR BY A. S. HITCHCOCK,
DETERMINED BY S. F. BLAKE, NOVEMBER, 1924.

- ✓ 19940. *Spilanthes ocymifolia* (Lam.) A. H. Moore.
- ✓ 20022. *Nocca mollis* Cav.
- ✓ 20151. *Schizoptera peduncularis* (Benth.) Blake.
- ✓ 20156. *Melanthera aspera* (Jacq.) Steud.
- ✓ 20159. *Verbesina minuticeps* Blake. (Type)
- ✓ 20162. *Spilanthes ocymifolia* (Lam.) A. H. Moore.
- ✓ 20217. *Garcilassa rivularis* P. & E.
- ✓ 20227. *Baccharis trinervis* (Lam.) Pers.
- ✓ 20259. *Clibadium surinamense* L.
- ✓ 20261. " " "
- ✓ 20268. *Meibomia*
- ✓ 20292. " *infracta* (DC.) Blake.
- ✓ 20318. *Siegesbeckia orientalis* L. (?)
- ✓ 20321. *Helianthus hypargyreus* Blake.
- ✓ 20334. " " "
- ✓ 20342. *Vernonia canescens* H. B. K.
- ✓ 20366. *Helianthus hypargyreus* Blake.
- ✓ 20374. *Vernonia canescens* H. B. K.
- ✓ 20383. *Tessaria integrifolia* R. & P.
- ✓ 20384. *Jaegeria hirta* (Lag.) Less.
- ✓ 20389. *Viguiera aurea* (H. B. K.) Hieron.
- ✓ 20400. " " " "
- ✓ 20427. *Schistocarpha paniculata* Klatt.
- ✓ 20442. *Hidalgoa ternata* Llav. & Les.
- ✓ 20494. *Wulffia baccata* (L. f.) Kuntze.
- ✓ 20520. *Meibomia uncinata* (Jacq.) Kuntze (aff.).
- ✓ 20527. *Vernonia baccharoides* H. B. K.
- ✓ 20564. *Baccharis trinervis* (Lam.) Pers.
- ✓ 20578. *Porophyllum ruderale* (Jacq.) Cass.
- ✓ 20586. *Milleria quinqueflora* L.
- ✓ 20614. *Onoseris speciosa* H. B. K.
- ✓ 20615. *Meibomia uncinata* (Jacq.) Ktze.
- ✓ 20617. *Calea huigrensis* Blake.
- ✓ 20622. *Polygala paniculata* L. f. *leucoptera* Blake.
- ✓ 20624. *Onoseris salicifolia* H. B. K.
- ✓ 20630. *Perymenium ecuadoricum* Blake.
- ✓ 20632. *Viguiera aurea* (H. B. K.) Hieron.
- ✓ 20634. *Helianthus hypargyreus* Blake.
- ✓ 20670. *Baccharis trinervis* (Lam.) Pers.
- ✓ 20684. *Schistocarpha paniculata* Klatt.
- ✓ 20688. *Cotula australis* (Sieb.) Hook. f.
- ✓ 20704. *Tagetes graveolens* L'Hér.
- ✓ 20706. *Baccharis floribunda* H. B. K.
- ✓ 20720. *Meibomia uncinata* (Jacq.) Ktze. (aff.).
- ✓ 20726. *Franseria artemisioides* Willd.
- ✓ 20731. *Calea huigrensis* Blake.
- ✓ 20756. *Baccharis floribunda* H. B. K.
- ✓ 20775. *Gynoxys buxifolia* (H.B.K.) Cass.

✓ 20875. *Bidens humilis* H. B. K.
✓ 20845. *Verbesina arborea* H. B. K. exchar. & loc.
✓ 20851. *Baccharis genistelloides* (Lam.) Pers.
✓ 20869. *Verbesina arborea* H. B. K. exchar. & loc.
✓ 20910. *Loricaria thuyoides* (Lam.) Sch. Bip.
✓ 20926. *Leontopodium gnaphaloides* (H. B. K.) Hieron.
✓ 20930. *Erigeron pellitus* (H. B. K.) Wedd.
✓ 20991. *Plagiocheilus prostratus* Benth.
✓ 20951. *Chuquiragua microphylla* H. B. K.
✓ 20953. *Siegesbeckia mandoni* Sch. Bip.
✓ 20977? *Baccharis floribunda* H. B. K.
✓ 20993. " *teindalensis* H. B. K.
✓ 20995. " " "
✓ 20999. *Bidens humilis* H. B. K.
✓ 21012. *Barnadesia spinosa* L. f.
✓ 21020. *Bidens humilis* H. B. K.
✓ 21035. *Erigeron bonariensis* L.
✓ 21055. *Culcitium nivale* H. & B.
✓ 21061. *Baccharis caespitosa* (R. & P!) Pers.
✓ 21069. *Werneria nubigena* H. B. K.
✓ 21071. *Chuquiragua insignis* H. B. K.
✓ 21077. *Culcitium reflexum* H. & B.
✓ 21086. *Baccharis caespitosa* (R. & P.) Pers.
✓ 21087. *Diplostephium rupestre* (H. B. K.) Wedd.
✓ 21089. *Baccharis floribunda* H. B. K.
✓ 21140. *Trixis divaricata* Spreng.
✓ 21144. *Verbesina pentantha* Blake (Type).
✓ 21151. *Vernonia scorpioides* (Lam.) Pers.
✓ 21208. *Liabum hastifolium* P. & E.
✓ 21453. *Onoseris speciosa* H.B.K.
✓ 21480. *Polygala paniculata* f. *leucoptera* Blake.
✓ 21526. *Diplostephium empetrifolium* Blake.
✓ 21549. *Baccharis genistelloides* (Lam.) Pers.
✓ 21564. *Coreopsis venusta* H.B.K.
✓ 21569. *Cacosmia rugosa* H. B. K.
✓ 21570. *Gynoxys buxifolia* (H.B.K.) Cass.
✓ 21579. *Onoseris integrifolia* Less.
✓ 21595. *Baccharis genistelloides* (Lam.) Pers.
✓ 21656. *Erigeron crocifolius* (H.B.K.) Wedd.
✓ 21658. *Baccharis genistelloides* (Lam.) Pers.
✓ 21662. " *microphylla* H. B. K.
✓ 21731. *Xanthium spinosum* L.
✓ 21747. *Artemisia sodiroi* Hieron.
✓ 21760. *Tessaria integrifolia* R. & P.
✓ 21795. *Jaegeria hirta* (Lag.) Less.
✓ 21898. *Liabum hastifolium* P. & E.
✓ 21946. *Bidens humilis* H. B. K.
✓ 21954. *Culcitium reflexum* H. & B.
✓ 21969. " *nivale* H. & B.
✓ 21973. *Loricaria thuyoides* (Lam.) Sch. Bip.
✓ 21974. *Baccharis caespitosa* (R. & P.) Pers.
✓ 21997. *Erigeron pellitus* (H.B.K.) Wedd.

- 22060. *Baccharis caespitosa* (R. & P.) Pers.
- ✓ 22043. *Aphanactis jamesoniana* Wedd.
- ✓ 22048. *Bidens humilis* H. B. K.
- ✓ 22050. *Werneria nubigena* H. B. K.

Data for these no. (in this folder) . . . not added to labels -
Mr. Weathersby did not know about it at time of
writing determinations on labels in summer.

ECUADOR FERNS COLLECTED BY A. S. HITCHCOCK IN 1923.

Identified at U. S. National Herbarium by W. R. Maxon.

- ✓ 20097. *Salvinia auriculata* Aubl.
- ♦ 20262. *Ceratopteris thalictroides* (L.) Brongn.
- ✓ 20327. *Adiantum concinnum* H. & B.
- ♦ 20339. *Pellaea flexuosa* (Cav.) Link.
- ♦ 20354. *Notholaena sinuata* (Sw.) Kaulf.
- ✓ 20378. *Adiantum concinnum* H. & B.
- ✓ 20410. *Polypodium (Campyloneurum)* sp.
- ✓ 20412. *Didymochlaena truncatula* (Sw.) J. Sm.
- ✓ 20420. *Eschatogramme furcata* (L.) Trev.
- ✓ 20423. *Selaginella* sp.
- ♦ 20439. *Polypodium loricatum* L.?
- ✓ 20452. *Asplenium serratum* L.
- ✓ 20455. *Eschatogramme furcata* (L.) Trev.
- ✓ 20457. *Asplenium auritum* Swartz.
- ♦ 20462. *Polypodium fraxinifolium* Jacq. (sens. lat.).
- ✓ 20465. " *piloselloides* L.
- ✓ 20479. *Nephrolepis pendula* (Raddi) J. Sm.
- ✓ 20484. *Selaginella* sp.
- ✓ 20522. *Dryopteris oligophylla* Maxon var. *aequatorialis* C. Chr.
- ✓ 20529. *Nephrolepis biserrata* (Sw.) Schott. (The Gray Herbarium sheet,
reported as Polypodium sp., indicates a mixture.)
- *✓ 20546. *Diplazium* sp.
- ✓ 20547. *Diplazium* sp.
- ✓ 20605. *Adiantum concinnum* H. & B.
- ✓ 20671. *Polypodium angustifolium* Swartz.
- ✓ 20776. *Dryopteris* sp. Same as 20780.
- ✓ 20780. *Dryopteris* sp. Same as 20776.
- ✓ 20783. *Asplenium monanthes* L. var.
- ✓ 20784. *Asplenium monanthes* L.
- ✓ 20817. *Cyclophorus americanus* (Hook.) C. Chr.
- ✓ 20850. *Polystichum Sodiroi* Christ.
- ✓ 20877. *Lycopodium* sp.
- ✓ 20883. *Elaphoglossum tectum* (H. & B.) Moore.
- ✓ 20969. *Polystichum boboense* Hieron.
- ✓ 21033. *Equisetum bogotense* H. B. K.
- ✓ 21050. *Lycopodium crassum* Willd.
- ✓ 21312. " *cernuum* L.
- ✓ 21428. " *clavatum* L.
- ✓ 21433. " *complanatum* L., var.
- ✓ 21501. *Alsophila quadripinnata* (Gmel.) C. Chr.
- ✓ 21503. *Lycopodium contiguum* Kl. (Our specimen is clearly this.)
- ✓ 21504. " *herbaceum* (Spring.) Hieron.
- ♦ 21515. *Psilogramme elongata* (Hook. & Grev.) Kuhn.
- ✓ 21517. *Struthiopteris Buchtienii* (Rosenst.) Maxon.
- ♦ 21551. *Psilogramme*, n. sp.

- ✓ 21572. *Lycopodium complanatum* L., var.
- ✓ 21627. *Polypodium moniliforme* Lag.
- ✓ 21637. *Dicranopteris simplex* (Hook.) Maxon.
- ✓ 21638. *Jamesonia imbricata* (Cav.) Hook. & Grev.
- ✓ 21763. *Pteris coriacea* Desv.
- ✓ 21764. *Dennstaedtia obtusifolia* (Willd.) Moore.
- ✓ 21765. *Pteris Kunzeana* Ag.
- ✓ 21766. *Dryopteris submarginalis* (L. & F.) C. Chr.
- ✓ 21767. *Polypodium fraxinifolium* Jacq. (sens. lat.)
- ✓ 21792. *Diplazium* sp.
- ✓ 21828. *Polypodium fusco-punctatum* Hook.
- ✓ 21829. *Hemidictyum marginatum* (L.) Presl.
- ✓ 21838. *Pteris reticulato-venosa* Hieron.
- ✓ 21855. *Dryopteris* sp.
- ✓ 21869. *Selaginella* sp.
- ✓ 21897. *Selaginella* sp.
- ✓ 21918. *Cheilanthes myriophylla* Desv.
- ✓ 21924. *Notholaena bonariensis* (Willd.) C. Chr.
- ✓ 21964. *Lycopodium crassum* Willd.
- ✓ 21971. *Jamesonia brunnea* Maxon.

Aug. 22, 1927.

A. S. Hitchcock Ecuador

not found in sample

- ✓ 19989. *Coccoloba ruiziana* Lindau
- ✓ 19991. *Maytenus uliginosus* H. B. K.
- ✓ 20060. *Nicandra physalodes* (L.) Pers. - *Physalodes* and *Phy. o. odes*
- ✓ 20069. *Haemadictyon pallidum* DC.
- ✓ 20177. *Utricularia foliosa* L.
- ✓ 20089. *Thalia geniculata* L.
- ✓ 20166. *Physalis angulata* L.
- ✓ 20207. *Bradburya virginiana* (L.) Kuntze
- ✓ 20219. *Gliricidia sepium* (Jacq.) Steud.
- ✓ 20258. *Echites acuminata* R. & P.
- ✓ 20268. *Meibomia purpurea* (Mill.) Vail (Det. Schindler)
- ✓ 20303. *Gnaphalium elegans* H. B. K.
- ✓ 20304. *Minthostachys mollis* (H. B. K.) Epl.
- ✓ 20365. *Hyptis lacnospaeria* Epl. (Type)
- ✓ 20375. *Minthostachys mollis* (H. B. K.) Epl.
- ✓ 20453. *Pleistachya morlaezi* (Eggers) K. Sch.
- ✓ 20460. *Tabernaemontana poeppigii* Muell. Arg.
- ✓ 20539. *Echites trifida* Jacq.
- ✓ 20574. *Solanum suaveolens* Kunth & Touché
- ✓ 20595. *Echites trifida* Jacq.
- ✓ 20710. *Brassica nigra* (L.) Koch
- ✓ 20843. *Caesalpinia pectinata* Cav.
- ✓ 20881. *Neonelsonia acuminata* (Benth.) C. & R.
- ✓ 20962. *Gnaphalium graveolens* H. B. K.
- ✓ 20973. *Satureia brownnei* (Benth.) Briq.
- ✓ 20990. *Minthostachys tomentosa* (Benth.) Epl.
- ✓ 20997. *Achyrocline trianae* Klatt
- ✓ 21007. *Pentstemon gentianoides* Don
- ✓ 21074. *Geranium multipartitum* Benth.
- ✓ 21087 1/2. *Lucilia pusilla* H. B. K.
- ✓ 21215. *Securidaca coriacea* Bonpl.
- ✓ 21319. " " "
- ✓ 21485. *Daucus montanus* Willd.
- ✓ 21561. *Viburnum triphyllum* Benth.
- ✓ 21725. *Celeri graveolens* (L.) Benth.
- ✓ 21736. *Diplotaxis muralis micrantha* O. E. Schulz

Determined at the Gray Herbarium by Mr. C. A. Weatherby

	<u>Hitchcock</u>	<u>Scudor</u>	<u>1923</u>
20410 in part	Polypodium Phyllitidis L.		
20410 "	Polypodium		
20412	Pidymochlaena truncatula (Sw.) J. Sm.		
20458	Asplenium furcatum (L.) C. Chr.		
20479	Nephrolepis		
20522	Dryopteris "loanei (Baker) Ktze., var. pallidescens (C. Chr.)		
20529	Polypodium		
20546	Diplazium obtusum Desv.		
20547	" " "		
20671	Polypodium angustifolium Sw.		
20776	Dryopteris		
20817	Cyclophorus americanus (Hedw.) C. Chr.		
20823	Elaphoglossum crassipes (Hedw.) Diels		
20969	Polystichum		
21501	Alsophila quadripinnata (Gmel.) C. Chr.		
21503	Lycopodium eleatum L.		
21504	"		
21565	Polypodium moniliforme Lag.		
21698	Juncosmia		
21764	Dematopteris obtusifolia (Willd.) Moore ?		
21765	Pteris Yunzeana Ag.		
21766	Alsophila		
21767	Polypodium		
21792	Diplazium		
21828	Polypodium		
21829	Diplazium marginatum (L.) Diels		

	<u>Hitchcock</u>	<u>Scudor</u>	<u>1923.</u>
21106	Tillandsia multiflora Benth.		
21244	" " "		
21318	Cordia alliodora R. & P.		

ECUADOR PLANTS COLLECTED BY PROF. A. S. HITCHCOCK.

Identified at U. S. National Herbarium.

✓ 20164. *Alternanthera sessilis* (L.) Standl.

✓ 20496. *Peperomia hispidula*

✓ 20506. *Piper peltatum* ... f. H as *Potamo*, *peltata*

✓ 20572. " *pseudomarginatum*

✓ 20681. *Pitcairnea exscapa* Hook.

✓ 20838. *Tillandsia recurvata* L.

✓ 20968. *Vicia graminea* Sims.

✓ 21017. *Geum peruvianum* Focke. (Perhaps not distinct from *G. chiloense* Balb.) = In f. H as *Geum chilense*

✓ 21095. *Geum peruvianum* Focke. (= 21017) " "

✓ 21150. *Oxalis loxensis* R. Knuth.

○ 21162. *Peperomia choritana* Trel. Type.

○ 21163. *Mikania lanceolata* Hieron. (Det. B. L. Robinson)

✓ 21178. *Piper zarumanum* Trel. Type.

✓ 21190. *Pitcairnia exscapa* Hook.

✓ 21203. *Tibouchina oreensis* Gleason. Type.

✓ 21240. *Peperomia nummularifolia pubescens* C. DC.

✓ 21325. *Tillandsia usneoides* L.

✓ 21434. *Peperomia jamesoni* Regel

○ 21514. *Eupatorium atrescens* Robinson, sp. nov.

✓ 21529. *Siphocampylus bonplandianus* Benth. (Det. H. A. Gleason)

✓ 21617. *Buddleia incana* R. & P. (Compare with type collections at Geneva and Berlin)

✓ 21621. *Buddleia jamesoni* Benth.

✓ 21636. " *rugosa* H. B. K., rather than *B. incana*.

○ 21686. *Peperomia subconcava* Trel.

✓ 21768. *Tropaeolum pubescens* H. B. K.

✓ 21886. *Peperomia stelcophila glabrata* Trel. Type.

○ 22357. *Cryptantha granulosa* (R. & P.) Johnston. (Det. I. M. Johnston)

○ 22368. *Stevia dodecacheta* DC. (Det. B. L. Robinson)

○ 22384. *Cryptantha macbridei* Johnston (Det. I. M. Johnston)

○ 22406. *Nama dichotomum* (R. & P.) Chodsy. (Det. I. M. Johnston)

○ 22524. *Tillandsia recurvata* L.

Where are these numbers?

September 28, 1926.

In Hitchcock 21539. *Habenaria elephadioides* (F. Blk.) Don det. Miss C. K. Allen
Mo. Bot. Gard.